#000068660

RFP-1372.01 (REV. 9/97)
Previously RF-46522

CORRES. CONTROL
OUTGOING LTR NO.

DOE ORDER # [illegible]

97 RF06511

DIST.	LTR	ENC
BACON, R.F.	X	X
BENSUSSEN, S.J.	X	X
BORMOLINI, A.M.	X	X
BRAILSFORD, M.D.	X	X
BRYNER, C.J.		
BURDGE, L.	X	X
CARD, R.G.	X	X
COSGROVE, M.M.	X	X
COULTER, W.L.		
CRAWFORD, A.C.	X	X
FERRERA, D.W.		
FERRERA, K.P.		
HARDING, W.A.	X	X
HERRING, C.L.	X	X
HILL, J.A.	X	X
MARTINEZ, L.A.	X	X
PARKER, A.	X	X
TILLER, R.E.	X	X
VOORHEIS, G.M.	X	X
[illegible]	X	X
[illegible]	X	X
[illegible]	X	X
COR. CONTROL	X	X
ADMN. RECORD		
TRAFFIC		
PATS/T130G	X	X

CLASSIFICATION:		
UCNI		
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER SIGNATURE
[signature] (UINU)
Date 12-17-97

IN REPLY TO RFP CC NO: [illegible]

ACTION ITEM STATUS
☐ PARTIAL/OPEN
☑ CLOSED

LTR APPROVALS:

ORIG & TYPIST INITIALS
HJK/VL

KAISER·HILL
COMPANY

December 15, 1997

RF-97-06511

Jessie Roberson
Manager
DOE, RFFO

ANNUAL SUBMISSION OF THE KAISER-HILL TEAM QUALITY ASSURANCE PROGRAM DOCUMENT - RGC-233-97

Ref: Keith Klein, ltr (04788) to Robert Card, Same Subject, October 20, 1997

Enclosed you will find a copy of the Kaiser-Hill Team Quality Assurance Program (QAP) document, Revision 5. Revision 5 reflects changes made to the QAP to accommodate DOE, RFFO comments provided by the referenced letter. These changes include:

1. Added Appendix 2 to the QAP to provide a summary of changes to the current revision of the QAP.
2. Deleted all references to Standards Requirements Identification Documents (SRIDs) and added Order Compliance as the method to identify Site Standards.
3. Added the governing documents and process for controlling the graded approach.
4. Added the purpose and roles of the Rocky Flats Environmental Technology Site Functions and Responsibilities Manual (F&RM), the Site Corrective Action Requirements Manual (SCARM), the Site Documents Requirements Manual (SDRM), and the Integrated Safety Management Systems (ISMS).
5. Expanded the discussion regarding the role of the Architect Engineering/Construction and Construction Management subcontractors.
6. Updated the Site planning activities and associated management processes that affect the QAP. This includes a discussion on the strategic planning documents of the Ten Year Plan, Life Cycle Baseline and Focus on 2006 Plan.

Title 830 CFR Part 120 Section (b(3)) requires that changes to the Quality Assurance Program be submitted annually to the Department of Energy for review. This completes that annual requirement for Kaiser-Hill for 1997.

ser-Hill Company, L.L.C.
rier Address: Rocky Flats Environmental Technology Site, State Hwy. 93 and Cactus, Rocky Flats, CO 80007 • 303.966.700
ling Address: P.O. Box 464, Golden, Colorado 80402-0464

Rocky Flats
Environmental Technology Site

Revision 5

KAISER-HILL TEAM
QUALITY ASSURANCE
PROGRAM

APPROVED BY: R.E. Tuller for / R. G. Card 12/17/97
President, Kaiser-Hill Company, L.L.C.

Responsible Organization: Quality Program Effective Date: 12/15/97

ORC review not required
Periodic review frequency: 1 year from the effective date

Reviewed for
Classification/UCNI
By [signature] (UNU)
Date 12-17-97

The signatures on this page document that, for those areas under the representative's cognizance, the representative of each organization concurs that this write-up is accurate, factual, and reflects the organization's position.

CONCURRENCE—Kaiser-Hill Company, L.L.C.

/s/ R. E. Tiller, 12/17/97
R. E. Tiller, Executive Vice President and
Chief Operating Officer

/s/ S. J. Bensussen, 12/8/97
S. J. Bensussen, Vice President and
General Counsel

/s/ A. M. Bormolini, 12/9/97
A. M. Bormolini, Vice President
Human Resources and Communications

/s/ D. W. Ferrera, 12/10/97 for
M. D. Brailsford, Vice President
Safeguards, Security, Site Operations and
Integration

/s/ L. F. Burdge, 12/10/97
L. F. Burdge, Vice President
Planning and Integration

/s/ W. A. Harding, 12/11/97
W. A. Harding, Vice President
Safety Systems and Engineering

/s/ J. A. Hill, 12/5/197
J. A. Hill, Vice President
Environmental Management and
Compliance

/s/ L. A. Martinez, 12/8/97
L. A. Martinez, Vice President and CFO
Finance and Administration

/s/ A. M. Parker, 12/8/97
A. M. Parker, Vice President
Closure Projects Integration

/s/ G. M. Voorheis, 12/8/97
G. M. Voorheis, Vice President
Nuclear Operations

CONCURRENCE — Principal Subcontractors

/s/ R. F. Bacon, 12/3/97
R. F. Bacon, President
Safe Sites of Colorado

/s/ M. M. Cosgrove, 12/8/97
M. M. Cosgrove, General Manager
Wackenhut Services, L. L. C.

/s/ A. C. Crawford, 12/8/97
A. C. Crawford, President and General Manager
Rocky Mountain Remediation Services, L.L.C.

/s/ C. L. Herring, 12/8/97
C. L. Herring, President and General Manager
DynCorp of Colorado, Inc.

CONCURRENCE — Architect Engineering and Construction and Construction Management Subcontractors

/s/ P. R. Bengel, 12/5/97
P. R. Bengel
President and General Manager
Denver West Remediation and Construction

/s/ W. R. Winkler, 12/9/97
W. R. Winkler
President
Rocky Flats Engineers and Constructors

LIST OF EFFECTIVE PAGES

Pages	Effective Date	Change Number
1 - 39	8/1/97	Rev. 4
1 - 64	12/15/97	Rev. 5

TOTAL NUMBER OF PAGES: 64

Changes incorporated into Revision 5 are summarized in Appendix 2 and by change bars to the text.

TABLE OF CONTENTS

1.0 PURPOSE

This document is the Rocky Flats Environmental Technology Site (Site) Kaiser-Hill Team Quality Assurance Program (QAP). This QAP has been developed as required by 10 CFR 830.120, *Quality Assurance Requirements*, and Department of Energy (DOE) Order 5700.6C, *Quality Assurance*. This QAP discusses how the QA criteria of 10 CFR 830.120 and DOE Order 5700.6C are being met and the roles and responsibilities of the Kaiser-Hill Company, L.L.C. (Kaiser-Hill), the Integrating Management Contractor (IMC); the four Principal Subcontractors: DynCorp of Colorado, Inc. (DCI), Rocky Mountain Remediation Services, L.L.C. (RMRS), Safe Sites of Colorado (SSOC), and Wackenhut Services, L.L.C. (WSLLC); and the two Architect Engineering/Construction and Construction Management (AE/CCM) Subcontractors: Denver West Remediation and Construction, L.L.C. (DWRC), and Rocky Flats Engineers and Constructors (RFEC). Kaiser-Hill and the four Principal Subcontractors comprise the Kaiser-Hill Team.

Each of the individual Principal and AE/CCM Subcontractors shall develop company specific quality program description documents (commonly called Quality Assurance Program Plans or QAPPs) to describe how their company will comply with the Kaiser-Hill Team QAP or use the Kaiser-Hill Team QAP as their program. Kaiser-Hill will work to the Kaiser-Hill Team QAP.

2.0 SCOPE

This Kaiser-Hill Team QAP (referred to as the QAP) provides a road map for organizations, management, and stakeholders to help them understand how the Quality Assurance (QA) requirements are implemented. It is applicable to the IMC, Principal Subcontractors, AE/CCM Subcontractors and organizations working under the direction of the IMC, the Principal or the AE/CCM Subcontractors.

The Kaiser-Hill Team QAP describes roles and responsibilities, for implementing the requirements of 10 CFR 830.120 for nuclear facilities and activities, and DOE Order 5700.6C for non-nuclear facilities, activities, and services. This is a revision to and supersedes the Site QAP dated August 1, 1997.

3.0 DEFINITIONS AND ACRONYMS

Nonreactor Nuclear Facility - Activities or operations that involve radioactive and/or fissionable materials in such form and quantity that a nuclear hazard potentially exists to the employees or the general public. Incidental use and generating of radioactive materials in a facility operation (e.g., check and calibration sources, use of radioactive sources in research and experimental and analytical laboratory activities, electron microscopes, and X-ray machines) would not ordinarily require the facility to be included in this definition. Transportation of radioactive materials, accelerators and reactors, and their operations are not included. The application of any rule to a nonreactor nuclear facility shall be applied using a graded approach. Included are activities or operations that:

(1) Produce, process, or store radioactive liquid or solid waste, fissionable materials, or tritium;

(2) Conduct separations operations;

(3) Conduct irradiated materials inspection, fuel fabrication, decontamination, or recovery operations;

(4) Conduct fuel enrichment operations;

(5) Perform environmental remediation or waste management activities involving radioactive materials; or

(6) Design, manufacture, or assemble items for use with radioactive materials and/or fissionable materials in such form or quantity that a nuclear hazard potentially exists. (10 CFR 830.3, Definitions)

Nuclear Facility - Reactor and nonreactor nuclear facilities. (10 CFR 830.3, Definitions) Note: The requirements of 10 CFR 830.120 also apply to a nuclear facility under construction.

Quality - The condition achieved when an item, service, or process meets or exceeds the user's requirements and expectations. (10 CFR 830.3, Definitions)

Quality Assurance - All those actions that provide confidence that quality is achieved. (10 CFR 830.3, Definitions)

Quality Assurance Program (QAP) - The overall program established to assign responsibilities and authorities, define policies and requirements, and provide for the performance and assessment of work. (10 CFR 830.3, Definitions)

Quality Assurance Program Plan (QAPP) - The document of a Principal or AE/CCM Subcontractor expressing how the Subcontractor will comply with the applicable requirements of the Kaiser-Hill Team QAP. A Subcontractor QAPP may be satisfied by documented endorsement of the Kaiser-Hill Team QAP.

Other quality related definitions can be found in the Glossary of Terms in the Quality Assurance Manual.

The following acronyms are used in this document:

AB	Authorization Basis
AE/CCM	Architect and Engineering/Construction and Construction Management
ASAP	Accelerated Site Action Project
CAO	U. S. Department of Energy, Carlsbad Area Office
COEM	Conduct of Engineering Manual
D&D	Decontaminated and Decommissioned
DCI	DynCorp of Colorado, Inc.
DOE	Department of Energy
EPA	Environmental Protection Agency
FY	Fiscal Year
IMC	Integrating Management Contractor
ISMS	Integrated Safety Management System
Kaiser-Hill	Kaiser-Hill Company, L.L.C.
Kaiser-Hill Team	Kaiser-Hill and the Principal Subcontractors
M&TE	Measuring and Test Equipment
ORR	Operational Readiness Review
QA	Quality Assurance
QAP	Quality Assurance Program
QAPP	Quality Assurance Program Plan
RFFO	Rocky Flats Field Office
RMRS	Rocky Mountain Remediation Services, L.L.C.
SCARM	Site Corrective Action Requirements Manual
SDRM	Site Documents Requirements Manual
SAR	Safety Analysis Report
Site	Rocky Flats Environmental Technology Site

SNM	Special Nuclear Material
SSOC	Safe Sites of Colorado
TUM	Training User's Manual
TYP	Ten Year Plan
VSS	Vital Safety Systems
WBS	Work Breakdown Structure
WSLLC	Wackenhut Services, L.L.C.

4.0 STANDARDS AND REQUIREMENTS

The Kaiser-Hill contract with DOE contains the list of DOE Directives imposed on the Kaiser-Hill Team by DOE. The Kaiser-Hill Team QA requirements are identified in the *Quality Assurance Program Criteria* document (Section 7 of the Site QA Manual). The foundation upon which the *Quality Assurance Program Criteria* document was developed was the *DOE Environment, Safety, and Health Configuration Guide.* The *Quality Assurance Program Criteria* document development began with a search for QA regulations, orders, and consensus standards, without regard to applicability. In all, 28 QA documents were identified and obtained. The QA documents were reviewed for possible applicability to Site activities. Several documents were set aside as not applicable.

A hierarchy of the documents was selected to place a relative level of importance on the documents in case of conflict between documents. The QA criteria of 10 CFR 830.120 and DOE Order 5700.6C were incorporated. The remaining applicable documents were reviewed and items selected that, in the opinion of the writers, best described specific features that the criteria of 10 CFR 830.120 and DOE Order 5700.6C required. In the end, several documents remained that were applicable but not used. This was because they were redundant to, or not as clear as, those items selected from other sources. They are listed in the *Quality Assurance Program Criteria* document.

The development of the *Quality Assurance Program Criteria* document involved the Rocky Flats Field Office (RFFO), EPA Denver Office QA Manager, and Site subject matter experts having QA experience in the DOE complex or the nuclear industry. Based on their comments and using an iterative process, the *Quality Assurance Program Criteria* document, as well as this QAP, were further refined. The *Quality Assurance Program Criteria* document and this QAP are issued as sections in the Site QA Manual.

The requirements for the *Quality Assurance Program Criteria* document were selected from the following technical standards:

- 10 CFR 830.120, Procedural Rules for Nuclear Activities
- 10 CFR 830.120, *Quality Assurance Requirements*
- DOE Order 5700.6C, *Quality Assurance*
- ASME-NQA-1-1994, *Quality Assurance Requirements for Nuclear Facility Applications*, 1994

- ANSI/ASQC-E4-1994, *Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs*
- 40 CFR 194, Criteria for the Certification and Re-Certification of the Waste Isolation Pilot Plant's Compliance with the 40 CFR Part 191 Disposal Regulations, April 9, 1996
- EPA Order 5360.1 Program and Policy Requirements to Implement the Mandatory Quality Assurance Program, 1995 Draft
- ASTM-C-1009-89, *Standard Guide for Establishing a Quality Assurance Program for Analytical Chemistry Laboratories Within the Nuclear Industry*
- DOE/AL-QC-1,1995, *Quality Criteria*
- ANSI/NCSL Z540-1-1994, *Calibration Laboratories and Measuring and Test Equipment - General Requirements*
- G-830.120 0 Implementation Guide for use with 10 CFR 830.120 Quality Assurance

Future changes to Site standards will be conducted through the established Order-Compliance process for insertion into the Kaiser-Hill contract. Standards that are required by law or contract are mandatory unless a temporary or permanent exemption from that requirement has been granted by one having proper regulatory authority. The criteria for granting an exemption to a DOE nuclear safety requirement are specified in 10 CFR 820.62, *Criteria*.

In addition, DOE Carlsbad Area Office (CAO) quality program requirements which apply to Site activities where Transuranic waste will be characterized, packaged or shipped are specified in USDOE Carlsbad Area Office Quality Assurance Program Document, CAO-94-1012. Site implementation of these requirements are specified in the TRU Waste Management Manual, 3-MAN-008-WM-001, and the Rocky Flats Environmental Technology Site TRU Waste Characterization Program Quality Assurance Project Plan, 95-QAPjP-0050. Appropriate requirements from these documents are being incorporated into Principal Subcontractor quality assurance programs.

5.0 GENERAL INFORMATION

5.1 Program Overview

This Kaiser-Hill Team QAP describes the roles, and responsibilities for implementing the requirements of 10 CFR 830.120 for nuclear facilities and activities with the potential to cause radiological harm and DOE Order 5700.6C for non-nuclear facilities and activities.

Since 10 CFR 830.120 and DOE Order 5700.6C include essentially the same criteria, the IMC has incorporated the requirements into a single program document. The primary distinction between the two requirements is enforceability and applicability. From the perspective of applicability and enforceability, 10 CFR 830.120 applies to nuclear facilities and activities with the potential to cause radiological harm, and DOE Order 5700.6C applies to non-nuclear facilities, activities, and services.

On July 1, 1995, Kaiser-Hill became the IMC for the Site under a performance-based contract. As the IMC, Kaiser-Hill has overall responsibility for the Site and implements the Site mission through four Principal Subcontractors and two AE/CCM Subcontractors. Each of the Principal Subcontractors have specific areas of responsibility. DCI provides sitewide services in support of nuclear facilities such as metrology, occupational medicine, transportation, emergency preparedness, limited maintenance, and receipt inspection. RMRS performs Site environmental remediation and waste management and is responsible for several specific nuclear facilities. SSOC performs operations and maintenance for the majority of the Site's nuclear facilities. WSLLC provides security services for the Site. Kaiser-Hill and the Principal Subcontractors form the Kaiser-Hill Team. The two AE/CCM subcontractors, Denver West Remediation and Construction, L.L.C. (DWRC), and Rocky Flats Engineers and Constructors (RFEC) provide a broad range of AE/CCM services as specifically described and authorized by task orders under contract to Kaiser-Hill.

Due to the varied nature of the activities and responsibilities being performed, the individual Principal and AE/CCM Subcontractors are responsible for specific programs and activities that are unique to their area of expertise. As such, each have developed company-specific QAPPs to describe how their company complies with the Kaiser-Hill Team QAP to accomplish their specific mission. Principal Subcontractor QAPPs address all 10 CFR 830.120 and DOE 5700.6C criterion and requirements as applicable to their scope. AE/CCM Subcontractor QAPPs address the quality program requirements as specified in their contract. In addition, since AE/CCM Subcontractors perform work to individual task orders, their QAPPs specify how specific task order QA Program requirements are addressed to assure compliance with all applicable requirements.

The Site is in the post production, cleanup, and closure phase of its life cycle. Major planning activities are currently underway to support accelerated closure over the next decade. Included in this planning are the identification and prioritization of facilities for decontamination, deactivation, decommissioning, dismantling, and/or future use. One of the primary focuses of the Site is the performance of risk reduction activities including the preparation of nuclear materials for interim storage, liquid residue stabilization, and the elimination and mitigation of Site hazards. Also among the Site's planning activities are the identification and establishment of interim storage facilities.

The Site is instituting an Integrated Safety Management System (ISMS) through which ongoing and future activities that have the potential to cause radiological harm to the workers, public and environment are identified and evaluated. The ISMS integrates safety and environmental management standards/requirements into the work planning and execution processes and when implemented effectively protects the workers, the public and the environment. The ISMS combines a diverse group of people and risk-graded infrastructure programs to satisfy the multiple safety, environmental, and health needs uniformly. The ISMS identifies the mechanisms for increasing worker involvement in work planning, including hazard and environmental impact identification, analysis, and control; work execution; and feedback/improvement processes. The ISMS is primarily based on the philosophies, principles, and requirements of the *Department of Energy (DOE) Safety Management System Policy (DOE P 450.4), Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 95-2, Department of Energy Acquisition Regulation (DEAR) clause 970.5204-2,* and current infrastructure programs in use at the Site. The development of safety management programs using these standards and applying the graded

approach to standards implementation is intended to provide an appropriate level of protection and control for the conduct of work.

The hazards which are credible and have consequences that could cause radiological harm to the worker, the public or the environment are identified, analyzed and categorized, and controls for these hazards and their consequences are developed. Site documents which are used to adequately define the controls include: 1) the *Nuclear Safety Manual* and the *Criticality Safety Manual* which establish a formal set of controls and requirements for a range of activities, usually a facility; 2) The *Activity Control Envelope Development* procedure, *1-D55-ADM-02.37*, which results in detailed, documented hazards assessment and controls for the activity; and 3) *The Activity Definition Process* procedure *1-R32-ADM-02.38*, which determines the appropriate planning process that defines the controls necessary to perform the activity safely.

The ISMS relationship to the application of quality assurance for nuclear facilities and other activities at RFETS is embodied in five basic functions: 1) Define the scope of work; 2) Identify and analyze the hazards; 3) Identify and implement controls; 4) Perform the work; and 5) Provide feedback. The incorporation of quality assurance requirements into these functions is enhanced from previous application due to the ISMS by integration of the existing Site infrastructure established to implement the 10 QA Program criteria. The Site infrastructure includes the documents identified in the preceding paragraph as well as others, such as the *Conduct of Engineering Manual* (COEM), Conduct of Operations Manual (COOP), the *Integrated Work Control Program* (IWCP), the *TRU Waste Management Manual*, 3-MAN-008-WM-001 and the *Low Level Waste Management Plan*, 94-RWP/EWQA-0014, for radioactive waste.

The *ISMS Manual* was effective September 30, 1997, with full implementation scheduled for September 30, 1998. An *ISMS Implementation Plan* has been developed to assure personnel are trained in the concepts of ISMS and understand how the ISMS applies to the processes they now use to accomplish work safely. This will provide for a consistent and logical approach for ISMS implementation.

During the interim, until the ISMS is fully implemented, the same manuals and procedures that are integrated through the ISMS are used for the identification and control of activities which have the potential to cause radiological harm. When fully implemented, the ISMS will provide greater

assurance and consistency in identifying, analyzing and categorizing hazards associated with nuclear activities.

5.2 Accountability

As the IMC, Kaiser-Hill has overall responsibility for the Site and for QA at the Site. Kaiser-Hill requires activities with the potential to cause radiological harm to be conducted in accordance with 10 CFR 830.120 and other activities to be conducted in accordance with DOE Order 5700.6C. Activities with the potential to cause radiological harm are covered by 10 CFR 830.120.

Quality Assurance is a shared interdisciplinary function. It involves management and individual contributors of all organizations responsible for producing items, performing activities and services, and independently verifying that items, activities, and services comply with specified standards and requirements.

Each individual is responsible for the quality of their work, for reducing costs, for identifying nonconforming items, and for complying with requirements and procedures. Individuals who are responsible for producing an item or performing an activity, and their immediate management, have direct and final responsibility for the quality of the item, activity, or service. They are responsible for reviewing item reliability, process implementation, and other quality-related information and analyzing data to identify items and processes needing improvement.

Individuals or organizations assigned responsibility for the quality function and for verifying that activities affecting quality have been correctly performed have sufficient authority, access to work areas, and organizational freedom to:

- identify quality problems and initiate, recommend, or provide solutions to resolve identified problems;
- verify implementation of solutions;
- verify that nonconforming conditions are dispositioned in accordance with approved procedures; and
- directly access levels of management required to resolve identified problems.

5.3 Document Hierarchy

Figure 1 provides an overview of the Site Quality Document Hierarchy. It applies to the Kaiser-Hill Team and lower-tier contractors.

The *Quality Assurance Program Criteria* document contains the current Kaiser-Hill Team QA requirements.

The quality management philosophy of the IMC is expressed in the *QA Policy*. The *QA Policy* establishes the IMC commitment to ensure that QA requirements are addressed and risks and environmental impacts are minimized, while safety, security, reliability, and performance are maximized.

The Site Quality Assurance Manual contains the following (See Figure 1):

- Quality Assurance Program Mission and Vision.
- Kaiser-Hill Team Quality Assurance Program.
- Quality Assurance Program Glossary of Terms. The Glossary applies to documents developed to standardize the *Kaiser-Hill Team QAP* and its implementation. In case of conflict between the definitions contained in the Glossary of Terms and those contained in other Site documents, the definitions in the Glossary of Terms take precedence where pertaining to quality and the *Kaiser-Hill Team QAP*.
- Quality Assurance Program Infrastructure Document List. A list of the Site level infrastructure documents that implement the QA requirements.
- Site Quality Council Charter. The multicontractor Site Quality Council provides a mechanism for interaction between the IMC and the Principal Subcontractors on quality matters. The Site Quality Council provides guidance and direction for the development and implementation of the *Kaiser-Hill Team QAP*.
- Quality Assurance Program Criteria document.
  This document established the Quality Assurance Program requirements for the Site. The program incorporates requirements for several sources, including 10 CFR 830.120. Both nuclear and non-nuclear activities fall under the umbrella of the Quality Assurance Program and therefore incorporate the provisions of 10 CFR 830.120 and DOE 5700.6C. Activities with the potential to cause radiological harm are subject to 10 CFR 830.120 and are subject to compliance enforcement under 10 CFR 820.

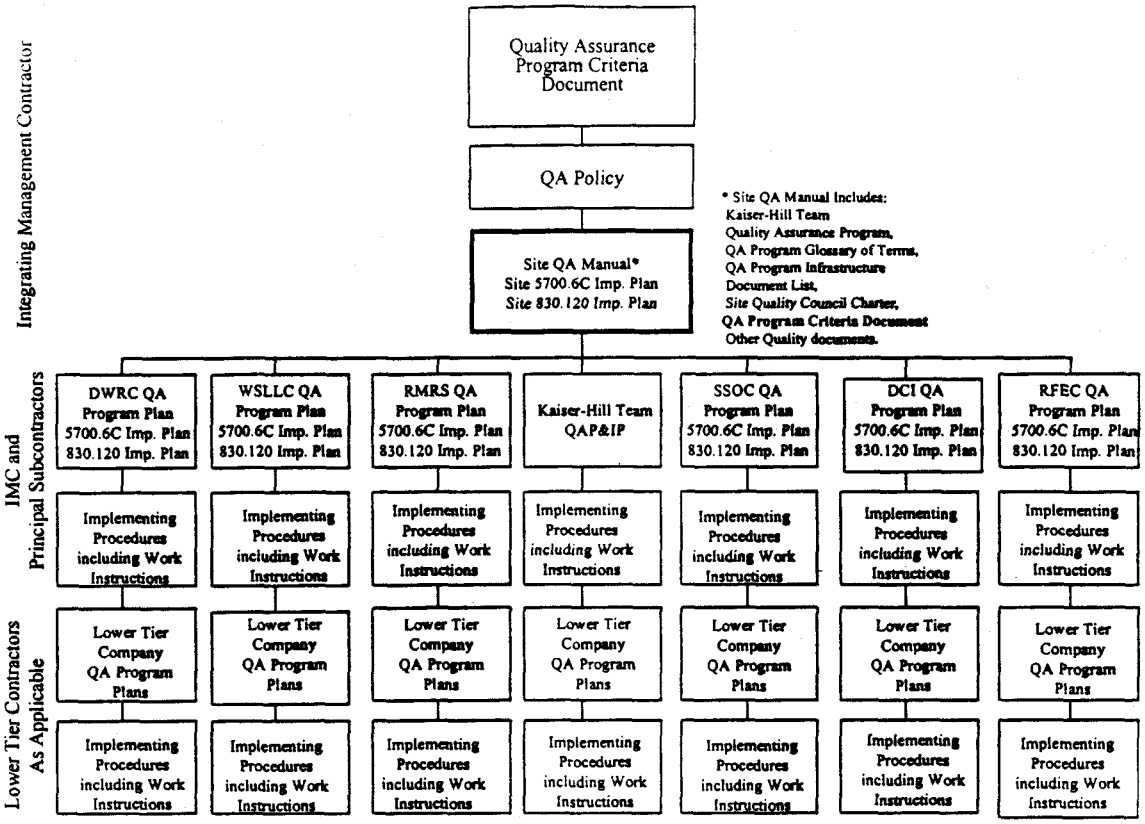

Figure 1
Site Quality
Document Hierarchy

5.3.1 The company-specific QAPPs and Implementation Plans describe how each company will comply with the *Kaiser-Hill Team QAP* to accomplish its own specific mission.

5.3.2 Based on company-specific input, the IMC developed the *Kaiser-Hill Team Quality Assurance 10 CFR 830.120 Implementation Plan*. Corrective actions that are identified in the Implementation Plan are tracked. The IMC monitors progress against stated Implementation Plan deliverables and keeps the DOE apprised of both progress and problems. The Implementation Plan is reviewed and updated as appropriate and submitted to DOE for review and approval as part of the Annual review.

The IMC and Principal Subcontractors are responsible for adhering to the Site infrastructure programs and procedures and for the development and implementation of company-specific procedures as needed for accomplishment of individual company-specific activities. Company-specific work instructions necessary for the accomplishment of the individual missions of the IMC and Principal Subcontractors can be found in their company-specific procedures. AE/CCM Subcontractor QAPPs identify the Site infrastructure programs and procedures for which they are responsible, in addition to specific requirements identified in the individual task orders.

5.4 Applicability of Quality Assurance Requirements to Site Nuclear Facilities

10 CFR 830.120 applies to nuclear facilities and to activities with the potential to cause radiological harm; however, the applicability of 10 CFR 830.120 is not limited to hazard category 2 and 3 nuclear facilities. 10 CFR 830.120 is applicable to activities that have the potential for causing radiological harm regardless of where they occur. The specific facility Authorization Basis (AB) document identifies the category of the nuclear facility in accordance with DOE Order 5480.23. Each Principal Subcontractor, as applicable, is responsible for the development and maintenance of the facility AB documents for Hazard Category 2 and 3 nuclear facilities. The *Site Safety Analysis Report* (SAR) is planned to contain a comprehensive listing of the category of each Site nuclear facility as identified in the AB documents. Kaiser-Hill Safety Systems and Engineering is responsible to maintain the Site SAR.

Quality assurance requirements for activities which have the potential to cause radiological harm are implemented as a part of the Site infrastructure. The Site safety management infrastructure is integrated through the ISMS processes which ensures that the scope of work is defined, hazards are identified and analyzed, controls are identified and implemented to prevent or mitigate the consequences of the hazards, work is performed and feedback of results of these processes are provided to management to ensure continuous improvement for safety. Site infrastructure documents include controls to address 10 CFR 830.120 requirements and include the *Nuclear Safety Manual, Criticality Safety Manual, Activity Control Envelope Development procedure, 1-D55-ADM-02.37*, and the *Activity Definition Process procedure, 1-R32-ADM-02.38* in addition to the QAP, Site Documents Requirements Manual (SDRM), Integrated Work Control Program (IWCP), Conduct of Operations Manual (COOP), and Conduct of Engineering Manual (COEM).

Hazards are identified, analyzed, and categorized and controls for these hazards and their consequences are developed based on the hazards. This is accomplished through the ISMS process. This can include the process of developing a SAR, BIO or BFO for nuclear activities, or Health and Safety Plans (HASPs), Job Hazards Analyses (JHA), As-Low-As Reasonably-Achievable (ALARA) reviews, Radiological Work Permits (RWPs), Remedial Investigations/Design Plans, Activity Control Envelope (ACE), Feasibility Studies, or Proposed Action Memoranda (PAM) for non-nuclear/radiological and industrial hazardous activities. Whether or not a SAR, BIO, or BFO must be developed for a given activity, set of activities, or facility can be determined by performing a hazards analysis per DOE standards *DOE-EM-STD-5502-94, DOE-STD-1027-92* and DOE-STD-3009-94, and DOE memorandum from Richard L. Black, dated June 6, 1997, addressing hazard categorization.

Hazards analysis identifies the severity of consequences of the hazards. Work planning applies the necessary controls to mitigate or prevent the consequences of the hazards. Pre-evolution briefings are conducted with workers to review the work planning, applicable procedures, safety analyses and other pertinent safety precautions. Pre-evolution briefings are required for tasks in nuclear facilities and complex or uncertain tasks outside nuclear facilities.

5.5 Graded Approach

Graded approach is the process by which the levels of analysis, documentation, and other actions necessary to implement the QA requirements are based on facility/activity specific factors.

10 CFR 830.120 and DOE Order 5700.6C are applied to the Site through the use of graded approach. In order to ensure the most efficient use of resources, graded approach is used to determine the rigor with which the QA requirements are applied to a specific facility or activity. This approach provides the flexibility to implement the programs in a way that best suits the facility or activity while maintaining full compliance with the 10 CFR 830.120 and DOE Order 5700.6C.

The facilities at Rocky Flats are identified as hazard category 2 or 3 nuclear facilities, radiological facilities, or other facilities. There are no hazard category 1 nuclear facilities at the Site. Because the SARs were written when the facilities were operational, they may reflect the need for more stringent safety requirements and operational needs. They may represent an over

commitment for what is needed for an end-of-life facility that will be decontaminated and decommissioned (D&D). As new AB documents are prepared, they will adequately reflect the requirements appropriate for the current Site mission. The DOE closure process for necessary and sufficient sets of standards is one method of applying graded approach.

Consistent with DOE STD-1082-94, *Preparation, Review, and Approval of Implementation Plans for Nuclear Safety Requirements*, the Kaiser-Hill Team organization responsible for a nuclear safety requirement has been empowered to use its best judgement in the determination of the appropriate graded approach to be used to achieve full implementation of the requirement. This judgment is based on detailed knowledge of the specific requirements, features, resources, needs, goals, and interface with other organizations and facilities. The graded approach utilized to comply with a QA requirement was developed by application of the best judgements of a group of experts who have collectively broad knowledge of the applicable facilities and activities, of the safety management program for applicable facilities and activities, and of the collective wisdom behind the established regulatory requirements as defined in regulations and amplified by related technical standards and guides.

Each Site-applicable procedure implementing a Site infrastructure program (QA requirements) has provided in the instructions section, as appropriate, the level of analysis, documentation, and actions necessary to comply with the QA requirements based on a graded approach.

Additionally, procedures and other documents which implement Site infrastructure programs with direct impact on work and work processes receive independent review under the existing Site infrastructure. This independent review utilizes an interdisciplinary technical evaluation process to evaluate safety issues and (implicitly) quality aspects. Further, work-level instructions, procedures, and other instruments of work control developed under the Site infrastructure programs receive independent review (through the parallel review process) as a verification of the implementation of safety and program (including quality) requirements, where the work to be performed meets threshold risk requirements. This process as a whole validates the grading and application of QA requirements.

The following general criteria are guiding principles in the application of graded approach by the Kaiser-Hill Team:

- Graded approach may not be used to avoid compliance with federal, state, and local regulations.

- The higher the risk, the more rigor is required to ensure that requirements are met.
- Site facilities and activities are graded as either nuclear or non-nuclear facilities or activities.
- The program owner organization, because it has detailed knowledge of processes, items, activities, and programs, uses best judgment in determining the rigor of requirement implementation, administrative controls, and business practices to be applied to ensure requirements are met.
- Implementing procedures and work plans reflect the use of the graded approach by setting forth direction for the amount of analysis, documentation, and actions required to ensure requirements are met.

Graded approach is a dynamic and iterative process designed to meet the QA requirements considering and using individually, or in combination, the following criteria:

- The relative importance to safety, safeguards, and security - The relative importance of an activity or item to safety, security, safeguards, environment, or mission provides the basis for establishing the order of completion or the depth, rigor, and thoroughness in applying the requirement. (For example: the corrective action process provides for grading deficiencies and other action items by significance level. Corrective actions are scheduled and accomplished based, in part, on significance.)
- The magnitude of any hazard involved - Consideration of the risks and hazards of the facility allows the implementing organization to focus resources on the activities most likely to reduce the associated risks and hazards by tailoring the implementing actions to the specific risks and hazards at the individual facilities and activities. (For example: activities to stabilize plutonium were given high priority in the *Ten Year Plan* (TYP), the Site strategic plan, in order to reduce the hazardous condition.)
- The life cycle stage of a facility - The consideration of the life cycle stage of a facility permits the implementing organization to assess the appropriate application for the current life cycle stage of the facility. (For example: a facility that has the source material removed, and that is scheduled for decontamination and decommissioning, should have fewer requirements than a plutonium storage facility.)
- The programmatic mission of a facility - The programmatic mission of a facility, including passive missions such as contamination confinement and material storage, may dictate the degree of gradation for the implementation of a requirement. (For example: an operating facility that

processes plutonium should have more rigorous and a larger number of requirements than a material storage facility.)

- The particular characteristics of a facility - The particular characteristics of a facility influence how nuclear safety requirements are applied. (For example: a waste storage facility should have fewer requirements than a plutonium facility performing stabilization activities.)
- Any other relevant factor - One such factor might be phased implementation of a requirement (by time or by facility). Phased implementation minimizes the impact on resources and allows for a learning curve. (For example: the procedure preparation process is being phased in over time to minimize the impact on resources.)

Graded approach has been utilized during the development of the Site infrastructure programs and implementing procedures. Graded approach is built into Site infrastructure programs and procedures including, but not limited to: Policies and Procedures, Issues Management, Operational Readiness Reviews, Lessons Learned, Configuration Management, Training and Qualification, Emergency Management, Security and Safeguards, Engineering, Maintenance, Conduct of Operations, Radiation Protection, Occurrence Reporting, Procurement, Waste Management, and Nuclear Safety. The Commitments Management and Corrective Actions Process provides a mechanism for prioritizing and evaluating unclassified deficiencies, concerns, and improvements. It is the responsibility of the Line organizations to ensure that QA requirements are applied in a manner commensurate with the work being accomplished. Line organization is defined as the organizations responsible for the execution of programs and conduct of work. Line organization is defined as those organizations responsible for the execution of programs and conduct of work. The documents which govern the graded approach process are the QAP, *Site Documents Requirements Manual* (SDRM) and the *Integrated Safety Management System* (ISMS) *Manual*. The QAP provides the graded approach criteria, while the SDRM describes the controls to assure the criteria are considered when developing implementing procedures. The ISMS Manual integrates these procedures to identify the controls to be applied when determining the prevention or mitigation of the consequences of hazards.

Appendix 1, Graded Approach To The Requirements of 10 CFR 830.120, describes how graded approach is applied to each of the ten criteria of the QA Rule.

6.0 ORGANIZATIONAL ROLES AND RESPONSIBILITIES

6.1 Organization

The Kaiser-Hill Team organizational structure, functional responsibilities (including integration and implementation responsibilities), lines of authority, and interfaces are identified in the *Rocky Flats Environmental Technology Site Functions and Responsibilities Manual.* This manual, currently in draft form and scheduled for issuance late calendar year 1997, or early 1998, provides clearly defined responsibilities for each Kaiser-Hill Team member at RFETS and is designed so that each Team member:

- Understands the major Site functions.
- Understands the differences between Kaiser-Hill integration responsibilities and Principal Subcontractor work performance responsibilities.
- Recognizes the Kaiser-Hill organization with integration responsibilities and overall accountability for each function.
- Recognizes the Principal Subcontractor, or in some cases, the Kaiser-Hill organization, with implementation responsibilities for each function.
- Recognizes the organizational units with whom each Team member interfaces.
- Understands the responsibilities for facility maintenance and operations.
- Knows the Kaiser-Hill person to call to solve a problem associated with a particular function.

The functions, objectives, and goals of the IMC are carried out by Kaiser-Hill. Work is performed by multiple contractors consisting of four major direct subcontractors known as Principal Subcontractors and two AE/CCM Subcontractors. Additional AE/CCM contracts may be established by Kaiser-Hill in the future. Each of the Principal and AE/CCM Subcontractors report to one of the IMC's organizational units. In addition, several lower-tier contractors provide support to the IMC, Principal and AE/CCM Subcontractors.

The interfaces and interactions between the IMC, Principal Subcontractors and AE/CCM Subcontractors are established in their respective subcontracts and task orders, and are identified in the *Rocky Flats Environmental Technology Site Functions and Responsibilities Manual.*

6.2 Roles

The following is a brief discussion of the roles and responsibilities of the IMC, Principal and AE/CCM Subcontractors in accomplishing the mission of the Site.

Kaiser-Hill as the IMC has overall responsibility for Site activities and is accountable to the DOE for the safe performance of work.

Rocky Mountain Remediation Services, L.L.C., as a Principal Subcontractor to Kaiser-Hill, is responsible for the waste management, environmental restoration, and decontamination and decommissioning activities at the Site and is accountable to Kaiser-Hill for the safe performance of work.

Safe Sites of Colorado, as a Principal Subcontractor to Kaiser-Hill, is responsible for the reduction of plutonium and residue vulnerabilities, implementation of the Site nuclear safety, radiation protection, and nuclear criticality programs, and deactivation of special nuclear materials facilities. Safe Sites of Colorado is accountable to Kaiser-Hill for the safe performance of work.

DynCorp of Colorado, Inc., as a Principal Subcontractor to Kaiser-Hill, provides Site support services including: fire and emergency services, management of emergency preparedness, receiving inspection, and metrology. DynCorp of Colorado is accountable to Kaiser-Hill for the safe performance of work.

Wackenhut Services, L.L.C., as a Principal Subcontractor to Kaiser-Hill, provides Site protective forces and other security related services and is accountable to Kaiser-Hill for the safe performance of work.

Denver West Remediation and Construction, L.L.C. and Rocky Flats Engineers and Constructors, as AE/CCM Subcontractors to Kaiser-Hill, provide various architect and engineering services, construction and construction management (design/build) services to the Principal Subcontractors. Typical projects may include tasks for nuclear and non-nuclear facilities, special nuclear facilities and associated D&D activities. Each AE/CCM is accountable to Kaiser-Hill for the safe performance of work.

The project manager for project activities which are performed by other subcontractors, including Principal Subcontractors, retains the authority to perform oversight, surveillances, and assessments of subcontractor activities and provide direction to subcontractors as deemed necessary by the project manager to assure completion of work in accordance with QA Program requirements. Specific interfaces among project management and subcontractor organizations are to be identified in appropriate documents.

6.3 Responsibilities

The principal responsibilities for individuals and organizations implementing the Kaiser-Hill Team QAP are identified in the *Rocky Flats Environmental Technology Site Functions and Responsibilities Manual*. The following is a brief identification of the general responsibilities of major Kaiser-Hill Team members as well as specific responsibilities of some organizations integral to the Quality Assurance Program:

6.3.1 The Kaiser-Hill President is responsible for:

- Approving overall policy and management direction for the Kaiser-Hill Team QAP.
- Approving allocation of resources to implement QA requirements.

6.3.2 All Kaiser-Hill Vice Presidents and Directors reporting to the Kaiser-Hill President are responsible for:

- Providing resources for their organizations necessary to implement the QA requirements, as applicable.
- Incorporating applicable QA requirements into documents that govern work, activities, and the procurement of items and services.
- Communicating applicable QA requirements to Principal Subcontractors and lower-tier contractors, as appropriate.
- Providing integration, coordination, and oversight (management assessments) of activities under their purview including those performed by subcontractors.
- Initiating the stop work process when appropriate.
- Ensuring effective implementation of the QA program, including continuous improvement.
- Management Assessment - Assessing the effective implementation of the Site QA Program.
- Taking timely corrective action for identified quality problems.

6.3.3 In addition to the responsibilities stated in 6.3.2, the Kaiser-Hill Vice President, Safety Systems and Engineering is responsible for:

- Establishing direction and guidance for defining, implementing, and maintaining the Site Design, AB and Quality Assurance infrastructures.
- Resolving QA related problems not resolved at lower or peer organization level.
- Developing and maintaining the Site Commitments Management and Corrective Actions Process, the Management Assessment Program, and the Independent Assessment Program.
- Establishing the Site Quality Council.

6.3.4 The Kaiser-Hill Quality Program Manager, under the Vice President, Safety Systems and Engineering, is responsible for:

- Identifying, documenting, and maintaining the QA requirements.
- Developing, preparing, and maintaining the Kaiser-Hill Team QAP to meet the requirements of 10 CFR 830.120 and DOE Order 5700.6C.
- Developing, coordinating, approving, and maintaining the *Site QA Manual.*
- Establishing, in coordination with the responsible implementing organizations, controls to ensure that conditions which are not in compliance with the QA requirements are identified and promptly corrected.
- Providing Kaiser-Hill assistance, indoctrination, and training in QA practices, procedures, and regulations.
- Maintaining liaison with regulators regarding quality assurance
- Maintaining the Approved Suppliers List
- Conducting Quality Audits
- Chairing the Site Quality Council

6.3.5 The Site Quality Council, under the leadership and direction of the Kaiser-Hill Quality Program Manager as Chairperson, is responsible for:

- Serving as the Site interface with the DOE, RFFO quality organization on quality-related matters.
- Reviewing Site performance indicators, trend reports, assessment and audit reports, deficiency reports, quality problems and issues, and corrective actions, as appropriate.
- Advising senior management regarding actual and potential issues related to quality that may affect the Site's ability to accomplish its mission or that may impact the workers, the public or the environment.

- Assisting senior management by providing recommended actions for satisfying quality performance measures. Interacting with DOE and other oversight entities, as appropriate.

6.3.6 Principal Subcontractors and AE/C/CM Subcontractors (in accordance with their QAPP and task order requirements) are responsible for:

- Providing resources to implement the Site and company-specific QA requirements, as applicable.
- Implementing Site infrastructure programs and procedures, as applicable.
- Providing resources for the development and maintenance (when infrastructure procedures do not exist) of procedures and instructions to accomplish their company-specific missions.
- Communicating QA requirements to lower-tier contractors and suppliers and approving the QAPPs of their lower-tier contractors, when applicable.
- Providing company-specific organizational charts, functional responsibilities, levels of authority and updating as necessary.
- Performing management assessments of their respective quality related activities and reporting results to management.
- Tracking and providing timely corrective action for identified quality problems.
- Initiating the stop work process when appropriate.
- Reviewing quality data to determine measures to strengthen performance.
- Facilitating the resolution of quality-related problems.
- Conducting independent assessments within their company.

7.0 SITE QUALITY ASSURANCE PROGRAM

The remainder of this document is divided into three subsections which correspond to the criteria of 10 CFR 830.120(c) and DOE Order 5700.6C.

Section 5 of the *Quality Assurance Program Manual, Quality Assurance Program Infrastructure Document List*, contains a list of the Site Level implementing documents for each of the criteria.

7.1 Management

7.1.1 Criterion 1, Program

7.1.1.1 Requirements

10 CFR 830.120 (c) (1) (i) for Nuclear Facilities/Activities
"A written quality assurance program (QAP) shall be developed, implemented, and maintained. The QAP shall describe the organizational structure, functional responsibilities, levels of authority and interfaces for those managing, performing, and assessing the work. The QAP shall describe management processes, including planning, scheduling, and resource considerations."

DOE Order 5700.6C, 9. b.(1)(a) for Non-Nuclear Activities
"Organizations shall develop, implement, and maintain a written Quality Assurance Program (QAP). The QAP shall describe the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing adequacy of work. The QAP shall describe the management system, including planning, scheduling, and cost control considerations."

7.1.1.2 Discussion

The *Site Quality Assurance Manual*, which contains the *Kaiser-Hill Team QAP*, is developed, implemented, maintained, and approved by the IMC. Each Principal Subcontractor will perform work to the QA requirements.

The Kaiser-Hill Team QAP is consistent with DOE G-830.120-Rev. 0, *Implementation Guide for use with 10 CFR 830.120 Quality Assurance Requirements.*

The individual company-specific QAPPs of the Principal or AE/CCM Subcontractors will implement the requirements of the Kaiser-Hill Team QAP. The QAPPs and changes thereto are required to be approved by Kaiser-Hill. All of the four Principal Subcontractor QAPPs and the two AE/CCM Subcontractor QAPPs are approved. Subcontractor QAPPs will apply the Kaiser-Hill QAP requirements to their subcontracted work, whether performed by the Subcontractor or a lower-tier contractor. The lower-tier contractor may work to the QAPP of the Subcontractor, or they may develop their own QAPP as long as their Plan is consistent with the Subcontractor's QAPP and has been approved by the responsible Subcontractor. Any exceptions taken to established Site infrastructure identified in the Kaiser-Hill Team QAP shall be identified in the QAPP and an alternate approach defined when the requirement is applicable to the Subcontractor. In addition, since AE/CCM Subcontractors perform work to individual task orders, their QAPPs specify how specific task order QA Program requirements are addressed to assure compliance with all applicable requirements.

The Kaiser-Hill Team had prepared an *Accelerated Site Action Project* (ASAP) strategic plan (also titled *Choices for Rocky Flats*) to radically decrease the Site risks and increase land availability as compared to the Site's past course of action. This strategic plan provided a number of alternatives for moving forward.

Now, the Kaiser-Hill Team in cooperation with DOE, RFFO has developed a Ten Year Plan (TYP) that will complete cleanup of the Site by 2010. The plan is built on the recent work done in developing the ASAP Phase I, ASAP Phase II, Workout III, and the FY 1997 budget. The TYP brings all of the above activities under a single umbrella.

During FY 1998, Kaiser-Hill will focus on combining the *Life Cycle Baseline Plan* and the *Ten Year Plan* into the *Focus on 2006 Plan*. The Life Cycle Baseline is a Rocky Flats Closure Project plan that currently shows the site closing in 2010. Efforts will be made to effect a closure earlier. The impact of the *Focus on 2006 Plan* on the QAP, based on planning, scheduling and resource considerations, will stem from two activities: 1. Since the *Focus on 2006 Plan* includes an analysis of the Life Cycle Baseline to identify potential cost savings by challenging accepted work practices, regulatory requirements and resource requirements, quality assurance related organizations will need to assure that reductions in these areas remain commensurate with the reduced risk on the Site, and 2. Quality related organizations will need to maintain cognizance of Life Cycle Baseline changes to ensure adequate resource

considerations due to changes in annual funding, yearly work progress and Stakeholder influences.

The above reviews are accomplished by the integration of quality requirements during development of Work Authorization Documents (WADs) which address work activities over the entire project period.

When completed and implemented, the Life Cycle Baseline will be a key project management tool for the Rocky Flats Closure Project. It will document the Site's approved plan for project execution through a WBS with WADs providing detailed scope statements and corresponding detailed schedules and cost estimates. The Baseline will encompass the entire scope of the project and extend until the Site Vision is achieved. The Life Cycle Baseline will undergo updates each year (e.g., to reflect actual versus planned progress and changes in DOE funding guidance for outyears). In addition, more detail will be added for current FY and FY plus one. Change control procedures are established and implemented for the Life Cycle Baseline.

The *Focus on 2006 Plan*, is a DOE Headquarters (HQ) document to facilitate planning and managing Environmental Management (EM) programs. DOE's integrated analysis of all EM Sites' plans will facilitate an integrated approach to waste treatment, material disposition, and other complex issues whose optimal solution may not be achievable on an individual site basis. At intervals specified by HQ, the *Focus on 2006 Plan* will be updated.

The Integrated Site Baseline is the official approved baseline for the current fiscal year. The fiscal year planning process will include updating the Life Cycle Baseline to reflect the latest funding guidance and actual work progress. This becomes the Integrated Site Baseline and will be used to manage work during the execution year. The Kaiser-Hill Quality Program budget for FY-98 is established in WBS 1.1.08.03.06.04 at $1,383,684.

The Kaiser-Hill Team follows the defined DOE budgeting process for funding current fiscal year work and for planning work for future fiscal years. The budgetary authorizations are included in approved budget work packages.

The *Kaiser-Hill Team QAP* describes the programmatic elements and Site infrastructure used for implementing QA requirements. The Site infrastructure provides for the development of program documents and procedures needed to satisfy the requirements of rules, regulations, and DOE Orders which are applicable to Site activities. The Site basic organizational structure, functional responsibilities, lines of authorities, and interfaces are

described in Section 6 of this document, Organizational Roles and Responsibilities, and detailed in the *Rocky Flats Functions and Responsibilities Manual.* Policies applicable to the IMC, and Principal Subcontractors are found in the *Policy Manual*, and are developed and maintained in accordance with the Policy Program.

The document hierarchy which includes the QAP is described in Section 5.3, Document Hierarchy, and illustrated in Figure 1, Site Quality Document Hierarchy.

Site work planning, work authorization, and implementation of QA requirements are accomplished through the establishment of policies, programs, procedures, and work instructions. Procedures that implement the activities are written, to satisfy the criteria according to the risk(s), hazard(s), and/or consequence(s) identified, and reviewed and approved by the appropriate level of management. The QAP provides the graded approach criteria, while the SDRM describes the controls to assure the criteria are considered when developing implementing procedures. The ISMS Manual integrates these procedures to identify the controls to be applied when determining the prevention or mitigation of the consequences of hazards. A list of Site level infrastructure documents which implement the Site QA requirements is found in the *Site QA Manual.*

Quality is achieved by the individuals who are responsible for producing an item or performing an activity. Quality may be measured by acceptance criteria, technical evaluations, inspections, management assessments, and independent assessments.

Deficiencies and nonconformances are documented and, based on their significance, corrective actions are formulated, documented, implemented, and selectively verified to prevent recurrence. Significance criteria are established in the Site *Corrective Action Requirements Manual* (SCARM).

Programs which have been enhanced or revised during FY-97 include: the *Site Documents Requirements Manual* as an enhancement of the Site documents development process; the *Site Corrective Action Requirements Manual* as a replacement for the previous Commitments Management/Corrective Action Process; the Integrated Safety Management System Manual; and the Standards Management transition from a previously adopted necessary and sufficient process for a more Directives-focused approach.

7.1.1.3 Implementing Documents

Documents, or applicable portions, that are used or may be used to implement QA requirements include: the Site *QA Manual*; the *Rocky Flats Functions and Responsibilities Manual*; the *Kaiser-Hill Environmental, Safety & Health Management & Implementation Plan*; 1-S27-ADM-02.28, *Price-Anderson Amendments Act Program*; 1-R97-F&A-MCS-001, *Management Control System*; 1-40-ADM-MCS-1002, *Work Package Development and Documentation*; and 1-R32-ADM-02.38, *Activity Definition Process*, 1-040 QAP-02.01, Preparation of *Quality Assurance Program Plans*, and the Site *Quality Assurance Program Procedures Manual.*

7.1.2 Criterion 2, Personnel Training and Qualification

7.1.2.1 Requirements

10 CFR 830.120 (c) (1) (ii) for Nuclear Facilities/Activities
"Personnel shall be trained and qualified to ensure they are capable of performing their assigned work. Personnel shall be provided continuing training to ensure that job proficiency is maintained."

DOE Order 5700.6C, 9. b.(1)(b) for Non-Nuclear Activities
"Personnel shall be trained and qualified to ensure they are capable of performing their assigned work. Personnel shall be provided continuing training to ensure that job proficiency is maintained."

7.1.2.2 Discussion

Training programs, including initial training, are designed to qualify and train personnel responsible for managing, developing, performing, and assessing work activities. Continuing training is provided to ensure job proficiency is maintained.

The qualification and training process is designed to enable management to determine and document job-specific and general training requirements for their employees. Training methods include formal training conducted by qualified instructors, briefings conducted by management approved personnel, required readings, workshops, seminars, and awareness training. Implementation requirements and responsibilities for personnel training and qualification are documented.

The training and qualification process is applied using a graded approach. For example, training of maintenance crafts will be focused on safety and other regulatory required training (e.g., Occupational Safety and Health Administration requirements). Other maintenance training and qualification will be limited to maintaining craft job proficiency at the journeyman level.

7.1.2.3 Implementation Documents

The *Training User's Manual* (TUM), implements the requirements of DOE Order 5480.20A, *Personnel Selection, Qualification, and Training Requirements at DOE Nuclear Facilities*. The TUM references the Site organization, and the planning and administration of the qualification/certification program, and sets forth the responsibilities, authorities, and methods for conducting training. The *Training Implementation Matrix* documents compliance to DOE Order 5480.20A for each nuclear facility. Company-specific procedures for training and training services are developed to support the TUM, including 10 CFR 830.120.

The training program includes general employee training which covers general requirements applicable to common elements of employees' work assignments. Personnel may also be required to complete area-specific training, based on their specific work area, building assignments, and access needs.

A matrix for line management to determine the general training requirements for each individual is available electronically. Employees may also be required to complete job-specific training in the unique aspects of individual jobs. Continuing training programs are designed and implemented to maintain and enhance job proficiency identified in the certification/qualification program. Line managers are responsible to incorporate applicable quality assurance program elements, codes, standards, and procedures into developed training or provide as additional training.

7.1.3 Criterion 3, Quality Improvement

7.1.3.1 Requirements

10 CFR 830.120 (c)(1)(iii) for Nuclear Facilities/Activities
"Processes to detect and prevent quality problems shall be established and implemented. Items, services, and processes that do not meet established requirements shall be identified, controlled, and corrected according to the importance of the problem and the work affected. Correction shall include identifying the causes of problems and working to prevent recurrence. Item characteristics, process implementation, and other quality-related information shall be reviewed and the data analyzed to identify items, services, and processes needing improvement."

DOE Order 5700.6C, 9.b.(1)(c) for Non-Nuclear Activities
"The organization shall establish and implement processes to detect and prevent quality problems and to ensure quality improvement. Items and processes that do not meet established requirements shall be identified, controlled, and corrected. Correction shall include identifying the causes of problems and preventing recurrence. Item reliability, process implementation, and other quality-related information shall be reviewed and the data analyzed to identify items and processes needing improvement."

7.1.3.2 Discussion

Infrastructure programs have been established and implemented to detect, prevent, and correct quality related problems.

The Corrective Action Program at the Site includes various identification and reporting processes, each developed and implemented in order to satisfy specific laws, requirements, or regulations. Although these processes contain many corrective action program elements, they individually do not satisfy all the requirements of umbrella requirements and laws, such as the Rule and Order. As a result, the Site deficiency identification and reporting processes are required to follow the *Site Corrective Action Requirements Manual* (SCARM) and its implementing procedures in order to assure that deficiencies are uniformly prioritized, tracked and trended, and that the minimum corrective action elements are met. The Plant Action Tracking System (PATS) is the approved Site tracking system.

Those items and activities that do not meet established criteria and/or predetermined quality requirements are identified, documented, analyzed,

dispositioned, corrected, and selectively verified in accordance with the Site nonconforming items process. Nonconforming items are controlled to prevent inadvertent installation, testing, or use. Based upon the importance to safety and the significance of the identified problem, causal factors are evaluated to establish the cause.

The occurrence reporting process establishes reporting requirements, follow-up corrective actions, and root cause analysis for events which could affect the health and safety of the public, could seriously impact the intended purpose for the Site facilities, could endanger the health and safety of the workers, or have a noticeable adverse effect on the environment.

Significance is determined based on potential impact to operations, safety, security, reliability, performance, regulatory compliance, and the environment. Verification and follow-up activities are performed on selected corrective actions depending, in part, upon the significance of the identified deficiency. When conditions require immediate cessation of activities, the stop work process is initiated.

Management assessments provide a consistent approach for management to evaluate compliance with requirements and commitments, measure effectiveness of established processes, identify and correct deficient conditions and work practices, and to implement needed improvements. Item characteristics, process implementation, and other quality-related information and data will be reviewed and the data analyzed to identify items, services, and processes needing improvement based upon a graded approach. Trending of maintenance history data will be accomplished for specific buildings and equipment based upon a graded approach. The Cause Analysis process is established to determine the root and contributing causes of events and conditions, and the associated corrective actions, that if implemented, will prevent or minimize the possibility of recurrence. The rigor of cause analysis is based on the significance of the issue.

The Sitewide Lessons Learned/Generic Implications Program is established to collect, evaluate, and distribute experience information related to concerns, deficiencies, occurrences, findings, defects, weaknesses, or other information with generic implications.

7.1.3.3 Implementation Documents

The quality improvement process is described and implemented, in part and as applicable, by several procedures. RFETS *Corrective Action Process Procedure* are defined in the Site *Corrective Action Section Requirements Manual*, 1-MAN-012-SCARM. The SCARM establishes the process and responsibilities for identification, documentation, characterization, categorization, and significance screening of deficiencies, management directives, and Site improvements.

Procedure 1-A65-ADM-15.01, *Control of Nonconforming Items*, establishes the process and responsibilities for identifying, controlling, resolving, modifying, evaluating, dispositioning, and verifying completed corrective actions for nonconforming items associated with non weapons applications. The Waste organization uses procedure 2-U76-WC-4030, *Control of Waste Nonconformances*, for identifying, controlling, resolving, evaluating, providing dispositions, and verifying completed corrective actions for nonconforming waste items and packages at the Site.

Deficiencies identified as Industrial Hygiene and Safety hazards are reported and administered in accordance with the *Health and Safety Practices Manual*, 1-E35-HSP-1.06, *Hazards and Deficiencies Abatement Management Process*.

Other procedures or applicable portions, that are used to identify and implement improvements are: 1-MAN-017-LLGI-RM, *Site Lessons Learned/Generic Implications Requirements Manual*;1-S27-ADM-02.28, *Price-Anderson Amendments Act,* 1-V10-ADM-15.02, *Stop Work Action*; 1-D97-ADM-16.01, *Occurrence Reporting Process*; 1-E93-ADM-16.18, *Performance Indication and Trend Analysis*; 1-Q05-ADM-02.26, *Standards Identification, Assessment, and Noncompliance Process*; and 1-MAN-013-SIOM, Site Integrated Oversight Manual.

7.1.4 Criterion 4, Documents and Records

7.1.4.1 Requirements

10 CFR 830.120 (c)(1)(iv) for Nuclear Facilities/Activities
"Documents shall be prepared, reviewed, approved, issued, used, and revised to prescribe processes, specify requirements, or establish design. Records shall be specified, prepared, reviewed, approved, and maintained."

DOE Order 5700.6C, 9.b.(1)(d) for Non-Nuclear Activities
"Documents shall be prepared, reviewed, approved, issued, used, and revised to prescribe processes, specify requirements, or establish design. Records shall be specified, prepared, reviewed, approved, and maintained."

7.1.4.2 Discussion

The *Site Documents Requirements Manual* (SDRM) provides the methodology and requirements for controlling and developing RFETS documents. These documents include policies, management directives, manuals, procedures, instructions, and job aids.

The SDRM identifies the type, purpose, applicability, and signature requirements for the different Site-applicable document types.

When a procedure is selected as the correct document type, then a graded approach is applied to specify the rigor and level of activity by which the applicable set of standards and requirements are met. A re-engineering effort is currently reviewing the SDRM process for further refinement.

The Site Document Control, Records Management, and Emergency Preparedness Programs are provided by Kaiser-Hill. Engineering Document Control is provided by the IMC. Principal Subcontractors are responsible for assuring adherence to the Site Document Control and Records Management Programs through their company-specific QAPPs.

The Site Document Control Program is designed such that Site documents to prescribe processes, specify requirements, or establish design are prepared, reviewed, approved, issued, and controlled for use by personnel managing or performing work. Controlled documents are distributed to the user in a manner to ensure the use of the latest revision; controlled to ensure that obsolete and superseded documents are stamped, destroyed, or recalled to prevent their inadvertent use; routinely verified to ensure controlled status, and maintained by indices.

Some Site procedures and other work control documents (excluding IWCP work packages) need to be reviewed and updated, revised, rewritten, deleted, or developed as appropriate to reflect the IMC concept, organization, and desired method of doing work. Compensatory actions to control such procedures are documented in a Kaiser-Hill President's letter to all Site personnel, dated June 29, 1995. The letter provided Points of Contact for procedures within each Site organization and emphasized that if employees

were uncertain about what to do, how to do it, or what procedures apply to their work, that they should stop and contact their manager, supervisor or foreman. Scheduled updates for procedures are driven by Responsible Managers on an as-needed basis, but as a minimum, will meet the periodic review requirements specified in SDRM, (prior to January 31, 1997, controlled by 1-A03-PPG-004, *Procedure Edit, Review and Comment*). Until needed procedures are developed or revised (scheduled for completion by March 30, 1998), Kaiser-Hill Team activities will be conducted in accordance with current practices.

A Records Management Program has been established to ensure that Site records providing evidence of quality are specified, prepared, reviewed, approved, authenticated, legible, transferred, collected, maintained, stored, retained to identified retention periods, and indexed for accountability and retrievability. The scope of records to be retained is normally identified by line management within the procedure that generates the record. The Records Management organization provides assistance to Site organizations in the determination of records and appropriate retention schedules.

Computer hardware and software that are used to store, maintain, index, and access records are controlled to ensure records protection from loss or damage, and to ensure accountability and retrievability.

7.1.4.3 Implementation Documents

Correspondence is controlled in accordance with procedure 1-11000-ADM-003, *Correspondence Control Program*, (to be superseded by 1-L43-IMS-001, same title). Documents are reviewed for appropriate technical content and accuracy in accordance with the *Site Documents Requirements Manual*, 1-MAN-001-SDRM. Manuals and procedures are distributed and controlled in accordance with procedure 1-77000-DC-001, *Document Control Program*.

Records generated by the Kaiser-Hill Team are controlled in accordance with procedure 1-V41-RM-001, *Records Management Guidance for Records Sources*. The procedure establishes the requirements and responsibilities of Site records sources for the identification, generation, correction, authentication, protection, and turnover of records, regardless of media type, to the Site Records Management organization.

7.2 Performance

7.2.1 Criterion 5, Work Processes

7.2.1.1 Requirements

10 CFR 830.120 (c)(2)(i) for Nuclear Facilities/Activities
"Work shall be performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means. Items shall be identified and controlled to ensure their proper use. Items shall be maintained to prevent their damage, loss, or deterioration. Equipment used for process monitoring or data collection shall be calibrated and maintained."

DOE Order 5700.6, 9.b.(2)(a) for Non-Nuclear Activities
"Work shall be performed to established technical standards and administrative controls. Work shall be performed under controlled conditions using approved instructions, procedures, or other appropriate means. Items shall be identified and controlled to ensure their proper use. Items shall be maintained to prevent their damage, loss, or deterioration. Equipment used for process monitoring or data collection shall be calibrated and maintained."

7.2.1.2 Discussion

Work processes and activities, including special processes, are performed as established by Site infrastructure programs and procedures such as the ISMS,SDRM and COEM. Principal Subcontractor QAPPs address all 10 CFR 830.120 and DOE 5700.6C criterion and requirements as applicable to their scope. AE/CCM Subcontractor QAPPs address the quality program requirements as specified in their contract. In addition, since AE/CCM Subcontractors perform work to individual task orders, their QAPPs specify how specific task order QA Program requirements are addressed to assure compliance with all applicable requirements.

Controls for work processes affecting quality are identified through the ISMS. The documents which implement the controls to do the work are defined through the SDRM, IWCP and COOP processes, which result in the establishment of instructions, procedures, drawings, training requirements, and other approved means. Proceduralized infrastructure programs and process control systems have been established and continues to evolve (e.g., introduction of the ISMS and SDRM) to assure standardized and consistent achievement of requirements, goals, and objectives.

Individual employees and line management are responsible for the achievement of quality. Line managers ensure that activities affecting quality are controlled by approved procedures or other appropriate means.

The extent of the controls applied to the work is commensurate with the scope, complexity, and risk associated with the assigned task. Corrective, preventive, and predictive maintenance will be accomplished for specific equipment based upon a graded approach. Not all items will be maintained to prevent damage and deterioration. Equipment used for monitoring or data collection is calibrated and maintained. Line management observes work performed, reviews work documentation, conducts management assessments, and ensures documentation and correction of deficiencies and nonconformances. Activities affecting quality are controlled through approved documents, (e.g., procedures, work packages, subcontracts and task orders, activity control envelopes, design packages, etc.).

The Site Measuring and Test Equipment (M&TE) Program provides controls to calibrate and maintain M&TE. The DCI Metrology organization provides administrative and technical expertise for Site calibration organizations. Metrology also develops requirements for the control of M&TE. Organizations that are responsible for the M&TE implement requirements for control. M&TE includes measuring and testing instruments, standards, reference materials, and auxiliary apparatus that are necessary to perform a measurement in the course of testing, inspection, or calibration.

7.2.1.3 Implementation Documents

The MAL contains a list of currently identified work activities which are either (1) a baseline activity necessary for performance due to the presence of hazards, (2) a mission program activity authorized for performance, (3) a mission program activity authorized for planning only, or (4) a currently unauthorized mission program activity. The MAL contains the list of currently approved nuclear activities; however, not every listed activity is a nuclear activity. For Fiscal Year 1998, plans include transitioning the responsibility for maintenance of the information in the MAL to the management organizations in the Principal Subcontractors.

Activities affecting quality are controlled through approved documents. Policies, management directives, manuals, procedures, instructions and job aids are controlled by the SDRM which provides a documented system for document preparation, review, change, revision, and approval. The *Conduct*

of Engineering Manual and *Engineering Drafting Manual* provide a documented process for engineering document (e.g., drawings and specifications) preparation, review, revision, approval, and controlled distribution.

Activity Based Management is implemented through the ISMS Manual which includes procedure 1-D55-ADM-02.37, *Activity Control Envelope Development*, and other Activity Based Management procedures.

Maintenance work activities are implemented through several procedures including the *Integrated Work Control Program Manual*; the Nuclear Safety Program; Welding Operations; the Quality Control Manual for the Repair and Alteration of Boilers and Pressure Vessels to the National Board Inspection Code; and the welding programs of each of the Principal Subcontractors.

Operations work is governed by the procedures found in the *Conduct of Operations Manual.* Radiological work is governed by the *Radiological Control Manual.* Other work is governed by the Waste Management Program, the Nuclear Control and Accountability Process, the Emergency Preparedness Program, the Procurement Program, M&TE procedures, etc.

A list of the Site level infrastructure documents which implement the Site QA requirements is found in the *Quality Assurance Manual.*

7.2.2 Criterion 6, Design

7.2.2.1 Requirements

10 CFR 830.120 (c)(2)(ii) for Nuclear Facilities/Activities
"Items and processes shall be designed using sound engineering/scientific principles and appropriate standards. Design work, including changes, shall incorporate applicable requirements and design bases. Design interfaces shall be identified and controlled. The adequacy of design products shall be verified or validated by individuals or groups other than those who performed the work. Verification and validation work shall be completed before approval and implementation of the design."

DOE Order 5700.6C, 9.b.(2)(b) for Non-Nuclear Activities
"Items and processes shall be designed using sound engineering/scientific principles and appropriate standards. Design work, including changes, shall incorporate applicable requirements and design bases. Design interfaces shall be identified and controlled. The adequacy of design products shall be

verified or validated by individuals or groups other than those who performed the work. Verification and validation work shall be completed before approval and implementation of the design."

7.2.2.2 Discussion

Kaiser-Hill provides engineering oversight for the Site. Principal and AE/CCM Subcontractors perform design in accordance with their subcontractors and task order which establish the quality assurance program requirements. Design requirements upon which final design work is based include inputs such as existing design bases, performance requirements, regulatory requirements, codes, standards, environmental considerations, risk, and interfaces with new or existing structures and equipment.

The design program provides controls for design of items and processes using engineering/scientific principles and appropriate standards. Design work includes the identification of the AB and consideration of nuclear materials safety. Design work includes incorporation of applicable requirements and design bases, identification and control of design interfaces, and verification and validation of the adequacy of design products by individuals or groups other than those who performed the work. The verification and validation is completed before approval and implementation of the design.

Design control applies to items, facilities, and processes and is documented and implemented through procedures, design packages, and work packages. The Software Management Program requires that design software, including changes, be documented, concurred with, and approved by qualified technical personnel. The requirements for computer testing are documented in software development plans and procedures.

7.2.2.3 Implementation Documents

Primary design controls are established, as applicable, within the *Conduct of Engineering Manual*; the *Configuration Change Control Program Manual; Engineering Drafting Manual, the Integrated Work Control Program Manual*; the *Computer Software Management Manual,* 1-MAN-004-CSMM; and the *Nuclear Safety Manual.* Procedure 1-V51-COEM-DES-210, *Design Process Requirements*, identifies how to apply engineering controls as a function of risk. Additional procedures include:

Nuclear Materials Safeguards Manual; 1-C10-NSM-04.03, Safety Evaluation Screen; 1-C11-NSM-04.05, Unreviewed Safety Question Determination; and 1-52000-ADM-02.01, ORC Requirements.

7.2.3 Criterion 7, Procurement

7.2.3.1 Requirements

10 CFR 830.120 (c)(2)(iii) for Nuclear Facilities/Activities
"Procured items and services shall meet established requirements and perform as specified. Prospective suppliers shall be evaluated and selected on the basis of specified criteria. Processes to ensure that approved suppliers continue to provide acceptable items and services shall be established and implemented."

DOE Order 5700.6C, 9.b.(2)(c) for Non-Nuclear Activities
"The organizations shall ensure that procured items and services meet established requirements and perform as specified. Prospective suppliers shall be evaluated and selected on the basis of specified criteria. The organization shall ensure that approved suppliers can continue to provide acceptable items and services."

7.2.3.2 Discussion

The IMC provides the Site with one common Procurement System for the procurement of commodities, items, and services; however, each of the Principal and AE/CCM Subcontractors maintain an individual procurement functions to process specific procurement documents. The Site procurement process provides a planned and controlled approach to procurement activities to ensure procured items and services conform to specified requirements. Procurement documents contain the technical, quality, and acceptance requirements for the procurement of items and services. The procurement process ensures that prospective suppliers are evaluated and selected on the basis of specified criteria.

Kaiser-Hill has specific contracts with each Principal Subcontractor which identify full scope QA program requirements. AE/CCM Subcontractor QA program requirements are defined through contract with Kaiser-Hill and specific task orders.

The procurement process also contains controls for technical, quality, and acceptance requirements to flow down to suppliers and lower-tier contractors. Included in this flow down are applicable Price-Anderson Amendments Act

requirements. Kaiser-Hill maintains a Procurement Quality function which evaluates suppliers for Site Subcontractors, maintains the Site Approved Supplier List, investigates supplier issues leading to resolution, and represents the Site to the DOE contractor's Supplier Quality Information Group. The Kaiser-Hill Procurement Quality function also provides measures to ensure that approved suppliers continue to provide acceptable items and services.

Procurement specifications for equipment, commodities, and services are developed in accordance with 1-W36-APR-111, *Acquisition Procedure for Requisition of Commodities and Services*. COEM-DES-273, *Engineering Standards for Procurement* specifies the application of technical and quality requirements to be included in the procurement specifications including product specifications and controls to preclude the procurement of suspect/counterfeit material. Procurement requisitions in support of work packages are initiated through the Integrated Work Control Program.

Kaiser-Hill is responsible for evaluating suppliers Quality Assurance programs and maintaining the Kaiser-Hill Approved Suppliers List in accordance with 4-J55-ADM-08.01, Supplier Quality Evaluations.

DCI is typically responsible for Site receipt, inspection, and certification. Receipt inspection and certification activities for procured items are conducted to verify compliance with the procurement documents. These activities include selected inspections, review of required documentation, selected testing, and ensuring the proper disposition and closure of nonconformance documents.

7.2.3.3 Implementation Documents

Procurement requirements are implemented in accordance with the Procurement *System Volume I and Volume II* and procedure *1-W36-APR-111, Acquisition Procedure for Requisitioning Commodities and Services,* which replaced Standing Order 30.

7.2.4 Criterion 8, Inspection and Acceptance Testing

7.2.4.1 Requirements

10 CFR 830.120 (c)(2)(iv) for Nuclear Facilities/Activities
"Inspection and testing of specified items, services, and processes shall be conducted using established acceptance and performance criteria. Equipment used for inspections and tests shall be calibrated and maintained."

DOE Order 5700.6C, 9.b.(2)(d) for Non-Nuclear Activities
"Inspection and acceptance testing of specified items and processes shall be conducted using established acceptance and performance criteria. Equipment used for inspections and tests shall be calibrated and maintained."

7.2.4.2 Discussion

Site infrastructure programs provide for inspection, testing, and calibration of specified items, services, and processes to demonstrate that items and processes perform as intended. Procedure 1-PRO-072-001, Inspection and Acceptance Test Process specifies inspection and test requirements applicable to the Site. The procedure provides a graded approach for determining when inspections and tests are required. Inspection, testing, and calibration are conducted using established acceptance and performance criteria. Equipment used for inspections and tests is calibrated and maintained. Inspections, testing, and calibration to verify conformance of an item to specified requirements and/or demonstrate satisfactory performance for service will be planned, documented, performed, and evaluated using a graded approach according to risk.

Controls are established and provide for documented methods to communicate the status of operations, equipment, and systems to affected personnel. The work package planning process specifies lock-out and tag-out situations and utilizes methods to convey the status of pre-operational and post-maintenance activities to promote the safe operation of equipment and systems. A formal return to service process following successful post-maintenance testing is established.

The status of operations is communicated through the Shift Relief and Turnover process, and the status of inspections and tests through Inspection, Test and Operating Status Control Boards strategically located within Site facilities.

The Site Measuring and Test Equipment Program and Site Metrology Program are provided by DCI, as well as field inspection support of applicable maintenance/construction work. The Site Metrology Program includes process, inline instruments as well as the standard Measuring and Test Equipment. Controls are provided so that inspection and acceptance testing, identified in the technical documents, is performed and documented as required and in accordance with procedures.

7.2.4.3 Implementation Documents

The inspection, testing, and calibration of specified items, services, and processes, including equipment, is controlled through the *Conduct of Engineering Manual*, the Integrated Work Control Program, and through the Procurement, Metrology, and Control of Measuring and Test Equipment programs. Applicable portions of the following documents implement this criterion: 1-PRO-072-001, *Inspection and Acceptance Testing Process*; 1-V51-COEM-DES-210, *Design Process Requirements;* and 1-I97-ADM-12.01, *Control of Measuring and Test Equipment.*

7.3 Assessments

7.3.1 Criterion 9, Management Assessment

7.3.1.1 Requirements

10 CFR 830.120 (c)(3)(i) for Nuclear Facilities/Activities
"Managers shall assess their management processes. Problems that hinder the organization from achieving its objectives shall be identified and corrected."

DOE Order 5700.6C, 9.b.(3)(a) for Non-Nuclear Activities
"Management at all levels shall periodically assess the integrated quality assurance program and its performance. Problems that hinder the organization from achieving its objectives shall be identified and corrected."

7.3.1.2 Discussion

Management assessment places emphasis on the use of human and material resources to achieve Site goals and objectives. Management assessments include an introspective evaluation to determine if the entire integrated management system effectively focuses on meeting Site and company goals. Self-evaluations or self-assessments are one form of management assessment. Other forms of management assessment include, but are not limited to, critiques, reviews, walkdowns, and appraisals.

The IMC and Principal Subcontractor management retain the overall responsibility for management assessments. Direct participation by managers is essential to assure that effective programs have been established and implemented. Managers conduct assessments of their processes to identify problems which may prevent the organization from achieving its goals and objectives. Problems detected by management assessments are documented and corrected in accordance with the *Site Corrective Action Requirements Manual.*

7.3.1.3 Implementation Documents

Management assessments are conducted by Site organizations in accordance with 1-MAN-013-SIOM, *Site Integrated Oversight Manual* and other approved procedures. Guidance applicable to the selection and prioritization of management assessment topics is contained in 1-W37-IA-002, Integrated Planning and Scheduling of Management Assessments.

Compliance with DOE Orders and other standards is established and documented in accordance with procedure 1-Q05-ADM-02.26, *Standards Identification, Assessment, and Noncompliance Processes.* Corrective action is taken in accordance with the *Site Corrective Action Requirements Manual,* 1-MAN-012-SCARM.

7.3.2 Criterion 10, Independent Assessment

7.3.2.1 Requirements

10 CFR 830.120 (c)(3)(ii) for Nuclear Facilities/Activities
"Independent assessments shall be planned and conducted to measure item and service quality, to measure the adequacy of work performance, and to promote improvement. The group performing independent assessments shall have sufficient authority and freedom from the line to carry out its responsibilities. Persons conducting independent assessments shall be technically qualified and knowledgeable in the areas assessed."

DOE Order 5700.6C, 9.b.(3)(b) for Non-Nuclear Activities
"Planned and periodic independent assessments shall be conducted to measure item quality and process effectiveness and to promote improvement. The organization performing independent assessments shall have sufficient authority and freedom from the line organization to carry out its responsibilities. Persons conducting independent assessments shall be technically qualified and knowledgeable in the areas assessed."

7.3.2.2 Discussion

The IMC is responsible for establishing direction and guidance for the Independent Assessment Program and performing independent oversight and assessments within the IMC and Principal Subcontractor organizations. Principal Subcontractors perform independent assessments within their specific company. Independent assessment activities are used to evaluate the performance of work processes with regard to requirements, expectations of the customer, and progress toward achieving the Site mission and goals. Independent assessment activities are conducted to assure the appropriate QA requirements are incorporated into Site work control processes and documents and are included in Site daily activities. Independent assessment activities evaluate floor level compliance with Site infrastructure programs and procedures. Independent assessment activities are documented and reports are provided to appropriate levels of management. Findings are used to evaluate effectiveness of the processes and identify needed improvements. Independent assessment concerns are tracked and follow-up actions taken to verify that corrective action is accomplished as scheduled in accordance with the Site Corrective Action Requirements Manual.

Those performing independent assessment activities have sufficient authority and freedom to carry out their responsibilities. Persons performing

independent assessment activities are technically qualified, knowledgeable in the areas assessed, and do not have direct responsibility in the areas assessed.

DOE requires that all contractors and their subcontractors allow access to all facility areas for the purpose of conducting assessment activities. To enhance the performance and efficiency of assessments, all employees, to the level of their knowledge and authority, provide requested information and documentation during the assessment process. For effective communication and where corrective action is necessary, management of the assessed organization(s) should participate in the assessment process.

7.3.2.3 Implementation Documents

Independent assessment activities are performed in accordance with 1-MAN-013-SIOM, *Site Integrated Oversight Manual.* The manual establishes the objectives, program elements, and coordination instructions for independent assessment programs implemented by the Integrating Management Contractor and each of the Principal Subcontractors. Procedures which provide requirements and guidance for planning and conducting readiness determinations are documented in 1-H24-ADM-10.0, Startup and Restart of Nuclear Facilities Operational Readiness Reviews and 1-U85-ADM-10.3, Startup and Restart of Nuclear Facilities/Programs Readiness Assessment/Management Review. Corrective action is taken in accordance with the *Site Corrective Action Requirements Manual,* 1-MAN-012-SCARM.

8.0 IMPLEMENTATION PLAN

The RFETS implementation plan for 10 CFR 830.120 will be submitted as a separate document. (Kaiser-Hill Team Quality Assurance 10 CFR 830.120 Implementation Plan)

See Section 5.3.1 and 5.3.2 for a description of the Implementation Plan.

APPENDIX 1
Page 1 of 7

Graded Approach To The Requirements of 10 CFR 830.120

The criteria of 10 CFR 830.120 are applied in a graded approach as described below:

(1) Program - There is one Kaiser-Hill Team Quality Assurance Program. It describes the roles and responsibilities of the Kaiser-Hill Team and the principal documents that implement the QA requirements. Implementing documents (procedures) have been developed, as appropriate, to utilize a graded approach for implementing the QA requirements and procedural instructions. Strategic planning for the Kaiser-Hill Team has focused on reducing the risks and hazards in the various Site facilities in order to accomplish the most mission work possible within a reasonable time period and within an allocated budget. The documents which govern the graded approach process are the QAP, *Site Documents Requirements Manual* (SDRM) and the *Integrated Safety Management System* (ISMS) *Manual.* The QAP provides the graded approach criteria, while the SDRM describes the controls to assure the criteria are considered when developing implementing procedures. The ISMS Manual integrates these procedures to identify the controls to be applied when determining the prevention or mitigation of the consequences of hazards.

(2) Personnel Training and Qualification - Requirements for the indoctrination, training, and continuing (refresher) training are commensurate with the scope, complexity, and nature of the assigned duties, or the activity, to be performed. The Site Training Implementation Matrix identifies the qualification and certification requirements by job designation for Site nuclear facilities.

(3) Quality Improvement - It is important that all deficient conditions and nonconforming items be identified; therefore, it is not appropriate to apply graded approach to their identification. Items that do not conform to requirements are controlled to prevent inadvertent installation or use. Graded approach is built into the corrective action process described by the SCARM. Each item that requires corrective action is evaluated and

ranked according to its significance. The higher the significance or risk level, the more rigorous are the required corrective action elements. In addition, the cause analysis procedure requires the more significant events to receive a more rigorous cause analysis. Based on significance and risk, item characteristics, process implementation and other quality related information for specific buildings or processes will be reviewed and data analyzed to identify items, services, and processes needing improvement.

(4) Documents and Records - Graded approach is applied to the preparation, review, approval, issue, distribution, use, and revision of documents based on their relative importance, the intended recipients, the applicability of the document, and the need to know. The more important documents approach has limited application in the specification, preparation, review, approval, and maintenance of Site records. If a document is, or will become, a record, it is governed by the Records Management Program. Government records must meet the requirements of the National Archives and Records Administration (NARA). NARA dictates how records are to be maintained and provides approved and graded retention schedules.

(5) Work Processes - Graded approach is built into Site work processes through the infrastructure programs and procedures. These include but are not limited to, Integrated Safety Management System, Site Document Requirements Manual Policies and Procedures, Issues Management, Readiness Determinations, Lessons Learned, Configuration Management, Training and Qualification, Emergency Management, Security and Safeguards, Engineering, Maintenance, Conduct of Operations, Radiation Protection, Occurrence Reporting, Procurement, Waste Management, and Nuclear Safety. The Commitments Management and Corrective Actions Process provides a mechanism for prioritizing and evaluating unclassified deficiencies, concerns, and improvements. A brief description of example work processes follows:

APPENDIX 1
Page 3 of 7

- Occurrence Reporting

Based on the reporting requirements established by DOE, Kaiser-Hill provides a graded approach to the implementation of DOE reporting requirements. Each event or occurrence is categorized by significance. The categories in descending order of significance are Emergency, Unusual Occurrence, Off-normal Occurrence, and Internally Reportable Occurrence. The first three categories are reported formally to DOE. The fourth category warrants notification of company management but not DOE. Occurrences that fall outside of these four categories do not require formal reporting. Grading is also built into the need to hold a fact-finding meeting and in the rigor of the cause analysis. If the facts are known and documented, a fact-finding meeting is not required. The rigor of the cause analysis and the resources to be applied to the cause analysis of an occurrence are dependent on the significance of the event and the potential risk the event or condition poses to the workers, the public, the environment, or the facility. Programmatic deficiencies which affect nuclear activities in accordance with 10 CFR 830.120, Quality Assurance Requirements, are reported to DOE via the nonconformance tracking system per 1-MAN-022-PAAAPROG, Price Anderson Amendments Act Program Manual.

- Readiness Determinations

The Site procedures that implement DOE Order 425.1, Startup and Restart of Nuclear Facilities, are documented in 1-H24-ADM-10.10, *Startup and Restart of Nuclear Facilities Operational Readiness Reviews* and 1-U85-ADM-10.03, *Startup and Restart of Nuclear Facilities/Programs Readiness Assessment/Management Review.* These procedures provide guidance in meeting the requirements for planning and conducting a Readiness Assessment (RA) when required by the conditions of a restart or activity as specified in the DOE Order 425.1 These procedures also provide a methodology for determining the breadth and depth of the readiness determination consistent with the hazards and complexity of the proposed facility transition. In addition to grading the readiness assessment by breadth and depth, the procedures are also graded by applicability. The readiness determination requirements do not apply to facilities that are less than Hazard

APPENDIX 1
Page 4 of 7

Category 3. Appendix 2 of 1-H24-ADM-10.10, *Application of the Graded Approach in ORR Planning*, provides factors to consider in developing the depth of readiness determinations.

- Maintenance

The Integrated Work Control Program provides a corrective, preventive, and predictive maintenance process for Operations Managers to identify, report, evaluate, assign resolution responsibilities, and close out deficiencies, modifications, and work requests. The process provides a graded approach based primarily upon importance to safety and the magnitude of the hazards. The maintenance process distinguishes between emergency work and non-emergency work. It provides a graded approach using a single work package development process. Using seven phases to develop each work package, the level of formality of the work package will be established based upon the six criteria of DOE definition of graded approach. The process permits routine maintenance work (such as repair of water fountains and touch-up painting) to be performed without a work package. It also provides for the use of pre-approved Standard Work Packages for certain repetitive maintenance work. Not all items will be maintained to prevent their damage or deterioration.

- Lessons Learned/Generic Implications

The lessons learned process utilizes a graded approach in determining the relative significance of a potential lesson learned and in the manner that lessons learned are distributed to Site organizations. Both onsite and offsite events and experience documents are reviewed to determine the applicability of the event or experience to the Site, to determine the significance, to determine the recurrence frequency, and to determine the recurrence probability. Based on the results of the review process, one of four types of lessons learned documents may be prepared. Red/Urgent Lessons Learned are sent on red paper and alert onsite facilities and personnel of potential eminent hazards for which corrective actions may be needed. Yellow/Caution Lessons Learned are sent on yellow paper and warn of potential event conditions. Blue/Information Lessons Learned are sent on blue paper and provide information that

APPENDIX 1
Page 5 of 7

may be of benefit to others. Green/Good Work Practice Lessons Learned are sent on green paper and share a positive lesson or action that has the potential to be the basis of significant improvement or cost savings. 1-MAN-017-LLGI-RM, Site Lessons Learned/Generic Implementations Requirements Manual documents this process above.

- Procedures and Policies

The Site Documents Requirements Manual, 1-MAN-001-SDRM provides the methodology and requirements for controlling and developing RFETS documents such as procedures and manuals. Graded approach has not been incorporated to address the rigor required or the flexibility granted with respect to procedure format. However, the sitewide procedure development process incorporates graded approach in several other ways. The use of procedures is graded by four Use Categories. The Use Category determines whether the procedure must be in hand, memorized, or referenced. Administrative procedures are included in Use Category 4. The process governing revisions, modifications, and changes to procedures is graded by two levels of effort, non-intent changes and intent changes. Graded approach is also incorporated through phased implementation. The Kaiser-Hill Team has identified approximately 25 policies contained in the Kaisers-Hill Policy Manual that express broad fundamental core values, principles, and expectations of senior management regarding the direction of the Site and Site personnel.

(6) Design - The design process utilizes a graded approach to system category classification to ensure that design, procurement, construction, repair and decommissioning activities are subject to appropriate levels of review and control commensurate with the safety function of the system, component, or part. System categories (SC) (1, 2, 3 or 4) are established based on the relative importance to safety and potential hazards commensurate with the function of the structures, systems, and components. Design activities include design inputs, analysis, interface control, verification, issue and change control. The four system categories ensure that appropriate resources are applied to all phases of design, construction, repair work, and decommissioning activities are

APPENDIX 1
Page 6 of 7

subject to levels of review and control commensurate with the safety function of the system, component, or part. Many old as-built drawings are not current; therefore, before an as-built drawing is used as input for SC 1 and 2 design modification, the affected location must be walked-down and a field-verified drawing generated. SC 3 and 4 modifications require accurate information as to field conditions, but a walkdown is not a requirement. The design process utilizes the graded procurement process (three quality levels based on importance to safety, safeguards, security, and intended use) when ordering new or replacement parts. Design verification requirements are established using a graded approach based on importance to safety, the complexity of the design, and the use of the output. (For example: computer software program features used as tools to develop a preliminary model or used merely as an aid in reviewing results need not be verified. However, program outputs used as inputs for final analysis are independently verified correct for each calculation, analysis, evaluation, or model.).

(7) Procurement - The procurement process uses Procurement Levels (1, 2, and 3) representing graded procurement controls which incorporate the level of quality necessary to ensure that procured items and services meet established requirements and perform as specified. Procurement Levels are used to define the method of procurement, and specify acceptance and requirements for purchased items and services. Suppliers used for Procurement Level 1 items and services are evaluated using a graded approach based on relative importance to safety, safeguards, and security. The graded approach applied during the design process provides input to the development of procurement/inspection specifications and determination of the appropriate Procurement Level.

Grading is also used by Engineering to specify the proper storage classification level (A, B, C, or D) in accordance with the procurement specification.

(8) Inspection and Acceptance Testing - Inspection and testing of specified items, services, and processes are conducted in accordance with 1-PRO-072-001, Inspection and Acceptance Test Process, utilizing established, acceptance and performance criteria. Engineering personnel determine inspection criteria and post-maintenance testing requirements

APPENDIX 1
Page 7 of 7

for maintenance and modifications. Inspection criteria and post-maintenance testing requirements are identified in maintenance work packages. Purchase requisitions identify the procurement level and the inspection requirements for procured items and services. Other than deciding whether inspection or post-maintenance testing is necessary, there is little grading that can be applied since inspections and post-maintenance testing requirements are based on national codes and technical standards.

(9) Management Assessments - The management assessment process is graded in that it empowers individual senior managers of the Kaiser-Hill Team to direct the development and implementation of management assessment programs for their respective organizations. The programmatic mission of an organization, as it relates to the application of QA requirements, will determine the management assessments performed. The Site Integrated Oversight Manual, 1-MAN-013-SSIOM, provides the programmatic framework for ensuring that an organization's management assessment program implements the management assessment requirement without being overly prescriptive or restrictive.

(10) Independent Assessment - Independent assessments are planned and conducted to measure item and service quality, to measure the adequacy of work performance, and to promote improvement. Flexibility (grading) in meeting these objectives is prescribed by prioritizing the program, scheduling assessments, and allocating resources in accordance with importance to safety, status, risk, and complexity of the item or process being assessed. Emphasis is placed on elements of activities most important to safety and on the need to evaluate facility performance when allocating assessment resources. Reactive independent assessments are performed in response to management requests, building or equipment problems, occurrence reports, negative performance trends, or unsatisfactory performance indicators. It is not appropriate to apply graded approach to the requirement that the group performing independent assessments have sufficient authority and freedom from the line to carry out its responsibilities. This process is controlled by the Site Integrated Oversight Manual, 1-MAN-013-SIOM.

APPENDIX 2*
Summary of Changes

	Changes Incorporated into QAP	QAP Section Affected	Basis for Concluding that the Revised QAP Continues to Meet 10 CFR 830.120
1.	Added Appendix 2 to the QAP to provide a summary of changes to the current revision of the QAP.	Appendix 2	This change compiles with the QA Rule, 10 CFR 830.120 which states that "a submittal shall identify the changes, the pages affected, and the basis for concluding that the revised QAP continues to satisfy the requirements of this section.
2.	Deleted all references to Standards Requirements Identification Documents (SRIDs).	Section 3 and Section 4	SRIDs are not required by 10 CFR 830.120. Although this approach for identifying applicable standards/requirements for the Site was previously accepted by DOE and Kaiser-Hill, that decision has been changed to use an order compliance approach which is now discussed in the QAP.
3.	Added discussions related at the newly defined Integrated Safety Management System (ISMS). Included ISMS relationship to QA, ISMS Manual and implementation plan.	Section 5.1, Section 5.4, Section 5.5, and Section 7.2.1.2,	The ISMS relationship to 10 CFR 830.120 is embodied in five basic functions: 1) define the scope of work, 2) identify and analyze the hazards, 3) identify and implement controls, 4) perform the work, and 5) provide feedback. QA is a part of these functions and is integrated into these functions through the Site infrastructure used to implement the 10 CFR 830.120 criteria.
4.	Reference to the MAL has been deleted to remove the implication that the MAL identifies nuclear activities. Added discussion regarding identification of hazards and QA relationship to how workers are identified of hazardous activities.	Section 5.4, Section 7.2.1.3, and Section 7.1.1.2,.	The Site safety management system identifies activities having the potential to cause radiological harm. Such activities require the application of 10 CFR 830.120.

*Note: the entire Appendix 2 is added to the QAP effective Rev. 5.

APPENDIX 2*
Summary of Changes

	Changes Incorporated into QAP	QAP Section Affected	Basis for Concluding that the Revised QAP Continues to Meet 10 CFR 830.120
5.	Deleted list of Hazard Category 2 and 3 facilities and identified that specific facility Authorization Basis (AB) documents contain the facility designation plus a comprehensive list is included in the Site SAR.	Section 5.4	Site Hazard Category 2 and 3 facilities are still defined. The QAP now references where their designation is defined rather than contain a duplicate listing which may not be accurate due to changes performed by nuclear safety.
6.	Added the governing documents and process for controlling the graded approach.	Section 5.5	The added discussion strengthens the basis for and outlines the process for graded approach which is required by 10 CFR 830.120.
7.	Added the purpose and roles of the Rocky Flats Environmental Technology Site Functions and Responsibilities Manual (F&RM), The Site Corrective Action Requirements Manual (SCARM), and the Site Documents Requirements Manual (SDRM). Added Discussion regarding control of old documents not yet revised under the SDRM.	Section 6.1 (F&RM), Sections 3.0, and 7.1.3.2, (SCARM), Section 3.0, Section 7.2.1.2, and 7.2.1.3, (SDRM) and Section 7.1.4.2, and Section 7.1.4.3, (SDRM)	The added discussion strengthens the bases for and description of the processes for implementation of 10 CFR 830.120.

*Note: the entire Appendix 2 is added to the QAP effective Rev. 5.

APPENDIX 2*
Summary of Changes

	Changes Incorporated into QAP	QAP Section Affected	Basis for Concluding that the Revised QAP Continues to Meet 10 CFR 830.120
8.	Added the role of the Architect Engineering/Construction and Construction Management subcontractors.	Sections 1 and 2, Section 3, Section 5.1, Section 5.3, Section 6.1, Section 6.2, Section 6.3.6, and Section 7.1.1.2	The process by which AE/CCM Subcontractors implement 10 CFR 830.120 and Site infrastructure has been enhanced.
9.	The following organizational changes have been made since the previous QAP submittal. No description has been made of organizational changes in the QAP text. The QAP refers to the RFETS Functions and Responsibilities Manual for organization definition.	Section 6.0	The Health and Safety, the Engineering Integration and Technical Support, and the Performance Assurance organizations were merged into the Safety Systems and Engineering Groups. Execution of the Radiological Control and Authorization Bases programs were delegated to the Principal Subcontractors. The position of Nuclear Systems Integration was eliminated. The Closure Projects Integration organization was formed to include D&D, Project/Construction Management, AE/CCM Management, Environmental Restoration, Waste Management and COTR responsibilities for RMRS. The Environmental Compliance and Management Organization was formed to include Regulatory Integration, Laboratory Management, Monitoring, Compliance and Waste Certification.

*Note: the entire Appendix 2 is added to the QAP effective Rev. 5.

APPENDIX 2*
Summary of Changes

	Changes Incorporated into QAP	QAP Section Affected	Basis for Concluding that the Revised QAP Continues to Meet 10 CFR 830.120
10.	Updated the Site planning activities and associated management processes that affect the QAP. This includes a discussion on the strategic planning documents of the Ten Year Plan, Life Cycle Baseline and Vision 2000 Plan. Also added discussion on the Work Authorization Document (WAD) process which assures QAP activities are funded, scheduled and resources allocated.	Section 7.1.1.2	Site planning is the basis for identifying the work to perform, funding sources and schedules, all of which require the integration of QA requirements and review to assure adequacy controls and resources applied.
11.	Added discussion on Quality Assurance Program Plan (QAPP) approval and implementation. Principal Subcontractor QAPPs address all 10 CFR 830.120 and DOE 5700.6C criterion and requirements as applicable to their scope. AE/CCM Subcontractor QAPPs address the quality program requirements as specified in their contract.	Section 7.1.1.2	QAPPs are funded to implementation of QA programs for individual companies/organizations as it identifies the QA program requirements, the bases for their implementation and brief description of the processes.
12.	Identified that Standing Order 30 was cancelled and replaced with 1-W36-APR-111, Acquisition Procedure for Requisitioning Commodities and Services.	Section 7.2.3.3	Replacement procedure meets 10 CFR 830.120 procurement requirements.

*Note: the entire Appendix 2 is added to the QAP effective Rev. 5.

APPENDIX 2*
Summary of Changes

	Changes Incorporated into QAP	QAP Section Affected	Basis for Concluding that the Revised QAP Continues to Meet 10 CFR 830.120
13.	Added discussion on readiness determinations and replacement designation of DOE Order 5480.31 with DOE Order 425.1.	Section 7.3.2.3., Appendix 1, Readiness Determinations	This is a change to reflect the revised DOE numbering system for Orders. A new procedure, 1-U85-ADM-10.3, Startup and Restart of Nuclear Facilities/Programs Readiness Assessment/Management Review, has been added to the description of readiness determinations to address DOE Order 425.1.
14.	Added that corrective action for Management Assessment and Independent Assessment is accomplished in accordance with the Site Corrective Action Requirements Manual.	Section 7.3.1.2, Section 7.3.1.3, , Section 7.3.2.2, and Section 7.3.2.3	Corrective Action is key to resolution of assessment identification deficiencies. A similar process was accomplished previously but no highlighted in the QAP.
15.	Added QA Program requirements for TRU Waste Management Program.	Section 4.0	Identifies 10 CFR 830.120 and NQA-1 as basis for K-H Team QA Program implemented for TRU Waste Management Program
16.	Added Order compliance as method to identify Site standards.	Section 4.0	Order compliance approach to identify Site standards will include requirements to implement 10 CFR 830.120.
17.	Added Kaiser-Hill Vice Presidents and Directors reporting to Kaiser-Hill President are responsible for ensuring effective implementation of the QA Program, including continuous implementation.	Section 6.3.2	Enhanced description of roles and responsibilities for implementation of the QA Program.
18.	Added authority for a project manager to perform oversight and provide direction to	Section 6.2	Management control and direction is in keeping with 10 CFR 830.120, Criterion 1, Program.

*Note: the entire Appendix 2 is added to the QAP effective Rev. 5.

APPENDIX 2*
Summary of Changes

	Changes Incorporated into QAP	QAP Section Affected	Basis for Concluding that the Revised QAP Continues to Meet 10 CFR 830.120
	subcontractor.		
19.	Added emphasis for implementation of 10 CFR 830.120, Criterion 2, Personnel Training and Qualification.	Section 7.1.2.3	Added additional description of TUM and line management responsibilities for training.
20.	Added description of the Kaiser-Hill Procurement Quality function.	Section 7.2.3.2	Enhanced description of procurement process to meet 10 CFR 830.120, Criterion 7, Procurement.

*Note: the entire Appendix 2 is added to the QAP effective Rev. 5.

Response to DOE, RFFO comments on Kaiser-Hill Team 10 CFR 830.120 Quality Assurance Plan, Revision 4

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
1.	1, page 6, section 5.1, page 10	The K-H Quality Assurance Program (Revision 4) annual submission fails to meet the intent of the QA Rule 10 CFR 830.120. The Rule states: "a submittal shall identify the changes, the pages affected, and the basis for concluding that the revised QAP continues to satisfy the requirements of this section." QAP Rev. 4 submittal fails to meet the aforementioned requirements of 10 CFR 830.120.	Item 1	An Appendix 2 has been added to the QAP which identifies the changes, pages affected, and the basis for concluding that the revised QAP continues to satisfy the requirements of 10 CFR 830.120.
2.	4, page 9	S/RIDs is not even an option. A decision NOT to do them has been approved. Reference to them should be deleted.	Item 2	The fourth paragraph of Section 4.0, which discussed the S/RIDs process, has been deleted.
3.	5.1, page 10	A. Is Integrated Safety Management (ISM) being used to support the QAP graded approach methodology? B. If so, ISM should be discussed in Appendix 1. C. Is there a pending ISM implementation plan that the QAP&IP should address? D. What is the relationship of ISM in terms of QA applications for nuclear facilities and activities at RFETS? E. Have the subcontractor QAPPs adopted ISM? F. Is the ISM process approved for use?	Item 3 for all parts of this comment.	A. Yes, a discussion of the process has been added to Section 5.1. The procedures which implement the ISMS are identified in Section 5.1. B. See proposed resolution to Comment 6A. C. An ISM Implementation Plan is being developed based on a Kaiser-Hill internal initiative to facilitate the implementation of the ISM system. Reference to this implementation plan and a description of its value has been added to Section 5.1. D. The following has been added to Section 5.1: The ISM relationship to the application of quality assurance for nuclear facilities and other activities at RFETS is embodied in five basis functions: 1) Define the scope of work; 2) Identify and analyze the hazards; 3) Identify

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				and implement controls; 4) Perform the work; and 5) Provide feedback. Quality Assurance is incorporated into these functions through the integration of the existing Site infrastructure established to implement the 10 QA Program criteria. These Site infrastructures include, for example, the *Conduct of Engineering Manual, Conduct of Operations* and the *Integrated Work Control Program.* E. Now that the ISM is officially established (September 30, 1997), the Principal subcontractors will be requested to modify their Quality Assurance Program Plans (QAPPs) to address ISM by April 30, 1997. Note: This commitment has been placed in the QAIP, Section 2.0. F. Section 5.1 has been revised to identify that the ISMS Manual was approved on September 26, 1997, to be effective September 30, 1997. Full implementation is scheduled for September 30, 1998.
4.	5.4, page 14	A. How does the Site maintain QA Rule applicability for nuclear activities when MAL does not make a distinction on which activities have the potential to cause radiological harm? B. What is the value of the MAL in terms of identifying which activities have the potential to cause radiological harm? C. How do workers know which activities are considered nuclear?	Item 4	A. Reference to the MAL has been deleted to remove the implication that the MAL identifies nuclear activities. The following has been added to Section 5.4:

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
		D. How will the "Integrated Sitewide Baseline" (to be published in FY98) solve this problem? E. What are the risks to the workers until the activities with the potential to cause radiological harm are properly identified and controlled?		Quality assurance requirements for activities which have the potential to cause radiological harm identified in the MAL and other activity defining documents are implemented as a part of the Site infrastructure. The Site infrastructure is integrated through the ISMS processes which ensures that the scope of work is defined, hazards are identified and analyzed, controls are identified and implemented to prevent or mitigate the consequences of the hazards, work is performed and feedback of results of these processes are provided to management to ensure continuous improvement. Site infrastructure documents include controls to address 10 CFR 830.120 requirements and include the *Nuclear Safety Manual, Criticality Safety Manual, Activity Control Envelope Development procedure, 1-D55-ADM-02.37*, and the *Activity Definition Process procedure, 1-R32-ADM-02.38* in addition to the QAP, Site Documents Requirements Manual (SDRM), Integrated Work Control Program (IWCP), Conduct of Operations Manual (COOP), and Conduct of Engineering Manual (COEM). The following has been added to Section 5.1: During the interim, until the ISMS is fully

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				implemented, the same manuals and procedures that are integrated through the ISMS are used for identification and control of activities which have the potential to cause radiological harm. Also added the following to Section 7.1.1.2: Hazards are identified, analyzed, and categorized and controls for these hazards and their consequences are developed based on the hazards. This is accomplished through the ISMS process. This can include the process of developing a SAR, BIO or BFO for nuclear activities, or Health and Safety Plans (HASPs), Job Hazards Analyses (JHA), As-Low-As Reasonably-Achievable (ALARA) reviews, Radiological Work Permits (RWPs), Remedial Investigations/Design Plans, Activity Control Envelope (ACE), Feasibility Studies, or Proposed Action Memoranda (PAM) for non-nuclear/radiological and industrial hazardous activities. Whether or not a SAR, BIO, or BFO must be developed for a given activity, set of activities, or facility can be determined by performing a hazards analysis per DOE standards *DOE-EM-STD-5502-94, DOE-STD-1027-92* and DOE-STD-3009-94, and DOE memorandum from Richard L. Black, dated June 6, 1997, addressing hazard categorization.

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				B. Reference to the MAL has been deleted to remove the implication that the MAL identifies activities that have the potential to cause radiological harm. As stated above, the Site Infrastructure, through the ISMS and its inclusive programs, ensures that hazards are identified, analyzed, and categorized and that controls for the hazards are developed. C. The following has been added to Section 5.4: Hazards analysis identifies the severity of consequences of the hazards. Work planning applies the necessary controls to mitigate or prevent the consequences of the hazards. Pre-evolution briefings are conducted with workers to review the work planning, applicable procedures, safety analyses and other pertinent safety precautions. Pre-evolution briefings are required for tasks in nuclear facilities and complex or uncertain tasks outside nuclear facilities. D. The Integrated Sitewide baseline will not identify nuclear activities or activities that have the potential cause radiological harm. The last paragraph of Section 5.4 is revised to state the following:

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				As stated in A above, the Site Infrastructure through the ISMS and its inclusive programs, ensures that hazards are identified, analyzed, and categorized and that controls for the hazards are developed. E. Minimal, the integration efforts of the infrastructure are accomplished through the ISMS which has refined previous methods of evaluation of hazards having the potential to cause radiological harm. The following has been added to Section 5.1: During the interim, until the ISMS is fully implemented, the same manuals and procedures that are integrated through the ISMS are used for the identification and control of activities which have the potential to cause radiological harm. When fully implemented, the ISMS will provide greater assurance and consistency in identifying, analyzing and categorizing hazards associated with nuclear activities.

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
5.	5.4, page 14	The MAL write-up is incorrect. This should be revised.	Item 4	Reference to the MAL has been deleted to remove the implication that the MAL identifies nuclear activities or activities that have the potential to cause radiological harm. Also, the reference to the integrated sitewide baseline as the baseline as the repository for information contained in the MAL was deleted; the integrated sitewide baseline will not identify nuclear activities or activities that have the potential to cause radiological harm.
6.	5.5, page 14	A. What is the governing document and/or process for controlling the application "graded approach" for the Site QA Program? Is it the Site QAP, Integrated Safety Management (ISM) process or the Site documents Requirements Manual? B. The role of the "new" manuals, processes and/or procedures should be explained in Rev. 4 of the QAP.	Item 6	A. The following has been added to Section 5.5: The documents which govern the graded approach process are the QAP, *Site Documents Requirements Manual* (SDRM) and the *Integrated Safety Management System* (ISMS) *Manual*. The QAP provides the graded approach criteria, while the SDRM describes the controls to assure the criteria is considered when developing implementing procedures. The ISMS Manual provides the integration of these procedures into the controls applied when determining the prevention or mitigation of the consequences of hazards. B. A description of the ISMS Manual has been added to the QAP in Sections 5.4 and 5.5; and Section 7.1.4.2.
7.	6.3, page 18	A. The RFETS Functions and Responsibilities Manual is a "new" document	A, Item 7	A. The *Rocky Flats Environmental Technology*

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
		for the Site and should be discussed in more detail. B. What is the role of the "new" Architect Engineering/Construction function with respect to the Site QAP? C. As additions to the Site infrastructure, both items should be discussed in more detail.	B and C Item 8	*Site* (RFETS) *Functions and Responsibilities Manual* is scheduled to be issued late CY 97 or early CY 98. Sections 6.1, 6.2 and 6.3 of the QAP have been revised to provide a description of the Manual. B. The AE/CCM is a function which integrates into existing infrastructure. Their scope has been addressed in Sections in 1.0, Scope, 2.0 Purpose, 5.0, Program Overview and 6.0 Organizational Roles and Responsibilities. The function of the AE/CCM Subcontractors related to the Site QAP is similar to the Principal Subcontractors which is discussed in Section 7.1.1.2. This requires a Quality Assurance Program Plan to be developed by the AE/CCM Subcontractors to implement the requirements of the Kaiser-Hill Team QAP. Specific QA program requirements are identified in their contracts and task orders. C. The discussion in the above referenced sections of QAP adequately address the role of the *RFETS Functions and Responsibilities Manual* and the AE/CCMs.
8. & 9.	6.3, page 18	A. Sr. Management's role for QAP implementation, assessment and improvement is loosely defined. B. The changes to the site organization should be discussed in Rev. 4 of the QAP.	A, Item 9 B, Item 8, 9, and 17	A. Since the *RFETS Functions and Responsibilities Manual* documents greater detail for Senior Management ongoing roles and responsibilities, the description of organization in the QAP has been reduced.

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				Reference to the RFETS Functions and Responsibilities Manual is made in Sections 6.1, 6.2 and 6.3. B. Major Kaiser-Hill Team organizational changes are identified in Item 9 of Appendix 2 of the QAP. In addition to the organizational changes identified in the QAP, Appendix 2, the role of the Architect Engineering/Construction and Construction Management (AE/CCM) Subcontractors was added to Section 1.0, Scope, Section 2.0, Purpose, Section 5.0 Program Overview and Section 6.0, Organizational Roles and Responsibilities. Also, the *RFETS Functions and Responsibilities Manual* has been described in Section 6.1, Organization, Section 6.2, Roles and Responsibilities, and Section 6.3 Responsibilities. Other top level organizational changes have been documented in Section 6.3. These include organizational name changes and major responsibility revisions.
10.	7.1 and 7.1.1.2	A. Is it the intent of the Management Section to describe future Site planning activities and management processes that affect the QAP? B. If so, what is the QAP impact in terms of planning, scheduling and resource consideration so when you take into account the 2006 Plan? C. Rev. 4 should include a discussion on the "Life Cycle Authorization Basis	Item 10	A. Section 7.1 will be updated for each annual QAP submittal to RFFO to identify any changes to the Site long-range planning process from a top level perspective.

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
		criteria" document.		B. The following has been added to Section 7.1.1.2: During FY-98, Kaiser-Hill will focus on combining the Life Cycle Baseline Plan and the Ten Year Plan (TYP) into the Focus on 2006 Plan. The impact of the Focus on 2006 Plan on the QAP based on planning, scheduling and resource considerations will stem from two activities. 1. Since the Focus on 2006 Plan includes an analysis of the Life Cycle Baseline to identify potential cost savings by challenging accepted work practices, regulatory requirements and resource requirements, quality assurance related organizations will need to assure that reductions in these areas remain commensurate with the reduced risk on the Site, and 2. Quality related organizations will need to maintain cognizance of Life Cycle Baseline changes to assure adequate resource considerations due to changes in annual funding, yearly work progress and Stakeholder influences. The above reviews are accomplished by the integration of quality requirements during development of Work Authorization Documents (WADs) which address work activities over a long term but with great detail during the FY and FY plus one period.

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				C. The following has been added to Section 7.1.1.2: When completed and implemented, the Life Cycle Baseline will be a key project management tool for the Rocky Flats Closure Project. It will document the Site's approved plan for project execution through a WBS with Work Authorization Documents (WADs) providing detailed scope statements and corresponding detailed schedules and cost estimates. The Baseline will encompass the entire scope of the project and extend until the Site Vision is achieved, The Life Cycle Baseline will undergo updates each year (e.g., to reflect actual versus planned progress and changes in DOE funding guidance for outyears). In addition, more detail will be added for current FY and FY plus one. Change control procedures will be established and implemented for the Life Cycle Baseline. The Focus on 2006 Plan is a DOE Headquarters (HQ) document to facilitate planning and managing Environmental Management programs. DOE's integrated analysis of all EM Sites' plans will facilitate an integrated approach to waste treatment, material disposition, and other complex issues whose optimal solution may not be achievable on an individual site basis. At intervals specified by

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				HQ, the Focus on 2006 Plan will be updated. The Integrated Site Baseline is the official approved baseline for the current fiscal year. The fiscal year planning process will include updating the Life Cycle Baseline to reflect the latest funding guidance and actual work progress. This becomes the Integrated Site Baseline and will be used to manage work during the execution year.
11.	7.1.1.2, page 21	A. The discussion does not indicate whether or not K-H has reviewed and approved all of the subcontractor QAPP's. B. Are the QAPP's approved and implemented?	Item 11	A. & B. All four of the Principal Subcontractors, and two AE/CCM Subcontractor's QAPPs are approved as of October 6, 1997.
12.	7.1.1.2, page 22	The following documents are not part of the Program discussion: Site Documents Requirements Manual or the Site Corrective Action Requirements Manual. Both documents are additions to the Site infrastructure and should be discussed in Rev. 4.	Item 7	The QAP has been updated by adding the following to the end of the last paragraph of 7.1.1.2: Programs which have been enhanced or revised during FY97 include: the *Site Documents Requirements Manual* as an enhancement of the Site documents development process; the *Site Corrective Action Requirements Manual* as a replacement for the previous Commitments Management/Corrective Action Process; the Integrated Safety Management System Manual; and Standards Management transition from a previously adopted necessary and sufficient process to a more Directives-focused approach.
13.	Section 7.1.1.2 page 23	QAP funding, planning, scheduling, and resource considerations are not	Item 10	The WAD process is how resources are

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
		adequately defined or referenced in Section 7. Merely stating that the budgeting process and approved budget work packages covers the QAP is not sufficient. Serious questions concerning adequate funding of the QAP have already been raised in FY97 for the functional areas of Procurement. WAD's specific to the QAP should be referenced in Rev. 4.		identified to accomplish the planned work. This process is being added to Section 7.1.1.2 (See Proposed Resolution to Comment 10 C) and specifies how budgeted resources for QAP activities are established. Section 7.1.1.2 has been revised to include the FY-98 Kaiser-Hill Quality Program WAD and budget.
14.	7.1.1.2, 3rd paragraph	If we approve the K-H QAP and one of their contractors takes exception to a requirement, shouldn't RFFO be required to approve?	Item 11	Exceptions taken by a subcontractor to the K-H team QAP will not be for the elimination of any applicable program requirements. Exceptions would typically be to procedures specified in the QAP in lieu of an alternate approach. This alternate approach will still need to meet the requirements of 10 CFR 830.120. Kaiser-Hill's responsibility is to review and approve or disapprove any exception documented in subcontractor QAPPs. This is in keeping with the IMC relationship to the subcontractors. This process will assure RFFO adequate control of subcontractor QA program integrity.
15.	7.1.1.2, 7th paragraph	The statement "currently authorized work is identified on the MAL" is not entirely correct since work is also authorized in an approved BIO, BFO, etc. This should be revised.	Item 4	Reference to the MAL has been deleted to remove the implication that the MAL is the repository for activities that are authorized. Work is authorized for performance through the authorization basis documentation process. The DOE, RFFO has identified those documents which comprise AB and Safety Basis documentation (D. C. Lowe letter to R. Bennett

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				and P. McEahern, 6//17/97, ABD:WHH:04101, Identification of Authorization Basis and Safety Basis Documentation). The document concludes that the "AB is defined by those documents that present the set of rules that the contractor agrees to follow, that require DOE, RFFO approval, and that DOE, RFFO relies upon to authorize operations." In accordance with this position, the set of documents that authorize work in nuclear facilities includes, among the other documents, SARs, BIOs, BFOs, JCOs, CSAs, TSRs, OSRs, USQs, and AAs, but does not include the MAL. It is also recommended that the AAs for each facility not be included since the process of the development of Authorization Basis documents is discussed. The facility AA listing can be found within the Kaiser-Hill Chief Engineers Office.
16.	7.1.1.2, last paragraph	Since the MAL AA was included, why weren't any of the building AAs?	Item 4	Reference to the MAL and the MAL AA has been removed. Although AAs, among other documents, are considered part of the authorization basis for activities, the inclusion of AAs does not contribute to the discussion It is also recommended that the AAs for each facility not be included since the process of the development of Authorization Basis documents is discussed. The facility AA listing can be found within the Kaiser-Hill Chief Engineers

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				Office.
17.	7.1.2.3, page 23	Can we assume that the TUM and the TIM includes all QAP training, certification and qualification requirements stipulated by the Site QAP?	Item 19	Yes. Line managers are responsible to incorporate QA program requirements and procedures into developed training or provide as additional training through the TUM and TIM. Section 1.2.3 has been revised accordingly.
18.	7.1.2.3, page 24	The Site Corrective Action Requirements Manual was not included as part of the discussion on Quality Improvement. This document is an addition to the Site QAP infrastructure and should be discussed. (see comment[s] 19 and 20 below).	Item 7	The *Site Corrective Action Requirements Manual* (SCARM) was issued during FY-97. The following has been added to Section 7.1.3.2: The Corrective Action Program at the Site included various identification and reporting processes, each developed and implemented in order to satisfy specific laws, requirements, or regulations. Although these processes contain many corrective action program elements, they individually so not satisfy all the requirements of umbrella requirements and laws, such as the Rule and Order. As a result, the Site deficiency identification and reporting processes are required to follow the Site Corrective Action Requirements Manual and its implementing procedures in order to assure that deficiencies are uniformly prioritized, tracked, trended, and that the minimum corrective action elements are met, The Plant Action Tracking System (PATS) is the approved Site tracking system.

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
19.	7.1.4.2, page 26	The Site Documents Requirements Manual (SDRM) 1-MAN-001-SDRM is an additional to the Site infrastructure and should be discussed in Section 7.1.4 [Criterion 4, Documents & Records].	Item 7	The following will be added as the first paragraph to Section 7.1.4.2: The *Site Documents Requirements Manual* (SDRM) provides the methodology and requirements for controlling and developing RFETS documents, such as policies, management directives, manuals, procedures, instructions, and job aids. The SDRM identifies the type, purpose, applicability, and signature requirements for the different Site-applicable document types, When a procedure is selected as the correct document type, then a graded approach is applied to specify the rigor and level of activity by which the applicable set of standards and requirements are met. A re-engineering effort is currently reviewing the SDRM process for further refinement. It should be noted that issues numbered 11 and 13 provide control in place for old Site documents which were not developed under the SDRM.
20.	7.2.1.3, page 28	This section implies that 1-MAN-001-SDRM (Site Documents Requirements Manual) is for policies only. SDRM covers Policies, Management Directives, Manuals, Procedures, Instructions and Job Aids.	Item 7	Section 7.1.4.2 was revised: Reference response to comment 20 above which identified policies, management directives, manuals, procedures, instructions, and job aid as part of an SDRM document. In addition, Section 7.2.1.3, second paragraph will be revised as follows: Activities affecting quality are controlled

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				through approved documents. Policies, management directives, manuals, procedures, instructions and job aids are controlled by *1-MAN-001-SDRM, Site Documents Requirements Manual* (SDRM). The SDRM provides a documented system for document preparation, review, change, revision, and approval. The *Conduct of Engineering Manual* and *Engineering Drafting Manual* provide a documented process for drawing preparation, review, revision, approval, and controlled distribution.
21.		The SDRM is a "new" process that controls activities affecting quality and therefore should be explained in detail.	Item 7	The changes to Section 5.5 (Ref. Comment 6), Section 7.1.1.2 (Ref. Comment 20) and Section 7.2.1.3 (Ref. Comment 21) will provide a description of the *Site Documents Requirements Manual*.
22.	7.2.2.2, page 29	A. What is the role of the "new" Architect Engineering/Construction function in terms of Criterion 6, Design? B. What controls A&E design activities?	Item 11	A. The design role of an AE/CCM is defined in their contract and is specific task orders. The contract specifics that they are to comply with procedure 1-V51-COEM-DES-210, Design Process Requirements; Additional design requirements would be specified on a case-by-case basis via specific task orders. Additionally, the area of AE/construction. The recognition of the AE/CCM Subcontractors was added to Sections 5.1, Program Overview; 5.3, Document Hierarchy; and Section 6.0, Organizational Roles and Responsibilities.

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				B. A/E design activities are controlled by the individual subcontractor QAPPs specifying appropriate controlling documents. (Ref. Section 5.3) "Document Hierarchy) and the Site-applicable procedures and manuals identified in Section 7.2.2.3, "Implementing Documents" for Criterion 6, Design).
23.	7.2.1.3, page 28	The MAL write-up should be reviewed and revised to be accurate.	Item 4	Reference to the MAL has been deleted.
24.	7.2.1.3, page 28	This section does not have any ISM "influence" incorporated.	Item 3	The Integrated Safety Management System Manual was not issued until September 30,1997, which was after submittal of QAP Rev. 4 to RFFO. Revisions have been made to provide a description of Integrated Safety Management in the QAP. Since Integrated Safety Management affects all criteria of the QA program, the discussion will be placed under Section 5.1, Program Overview, in addition to Section 5.4, Applicability of QA Requirements to Site Nuclear Facilities, Section 5.5 Graded Approach and Section 7.2.1.2. Also reference Comment Resolution to Comment 3.
25.	7.2.3.2, page 30	The function of Procurement Quality Engineering (PQE) is not discussed under Criterion 7, Procurement. Since PQE is an organizational element under K-H's QAO Manager, it should be part of the discussion in 7.2.3.2.	Item 20	Section 7.2.3.2 has been revised to add the following: Procurement documents contain the technical, quality, and acceptance requirements for the procurement of items and services. The

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				procurement process ensures that prospective suppliers are evaluated and selected on the basis of specified criteria.
26.	7.2.3.3, page 31	Has Standing Order 30 [Acquisition Guidelines for Requisitioning Commodities & Services] been replaced? If so, what is the new controlling process or procedure?	Item 12	Yes, *Standing Order 30* was canceled and replaced with *1-W36-APR-111, Acquisition Procedure for Requisitioning Commodities and Services* which is identified in Section 7.2.3.3.
27.	7.2.3.3, page 31	A. The infrastructure documents (Procurement system Volume I and II and 1-W36-APR-111, Acquisition Procedure for Requisitioning Commodities and Services are not listed in the QAM. B. Do these documents replace Standing Order 30? C. Is this a major change for QAP Rev. 4?	Item 12	A. *Procurement System Volumes I and II* ,and procedure *1-W36-APR, Acquisition Procedure for Requisitioning Commodities and Services* are listed in the QA Manual as part of the QAP, Section 7.2.3.3. B. Procedure 1-W36-APR replaces the canceled *Standing Order 30*. See comment 26 above. C. No, this is not a major change to QAP Rev. 4, but rather a refinement of the procurement process. Section 7.2.3.3 was revised as identified in comment 26 above.
28.	7.3.1.2, page 32	A. The discussion should address the relationship of management assessment and quality improvement/corrective action. B. In addition, the Site Corrective Action Requirements Manual supports both management assessment and quality improvement processes and therefore should be discussed in 7.3.1.2 or 7.1.3. C. Note: The Manual is a "new" Site infrastructure process.	A & B: Item 14 C: Item 7	A. A discussion of the SCARM has been added to Sections 7.3.1, Management Assessments and 7.3.2, Independent Assessments. B. Section 7.1.3.2, Quality Improvement, has been revised to discuss the SCARM. Reference Proposed Resolution, Comment 18 for specific

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				wording. Section 7.3.1 and 7.3.2 has also incorporated reference to the SCARM. C. The SCARM was issued August 15, 1997, to replace the Commitments Management Corrective Action Process procedure and refine the process. Several reference have been included in the QAPP as noted in responses to comments 12, 18, and 28..
29.	7.3.2.2, page 33	A. The discussion should address the relationship of independent assessment and quality improvement/corrective action. B. In addition, the Site Corrective Action Requirements Manual supports both independent assessment and quality improvement processes and therefore should be discussed in 7.3.2.2 or 7.1.3. C. Note: The Manual is a "new" Site infrastructure process.	A & B: Item 14 C: Item 7	A. See Comment 28, Proposed Resolution A. B. See Comment 28, Proposed Resolution B. C. See Comment 28, Proposed Resolution C.
30.	Page 36	Reference to DOE O 5480.31 should be revised to DOE O 425.1.	Item 13	Appendix 1, (5) Work Processes, Readiness Determinations has been revised to replace DOE Order 5480.1 with DOE Order 425.1.
31.	Appendix 1, page 2 of 5	Operational Readiness Reviews: Why does this section only address ORRs and not also RAS and MRs?	Item 13	Appendix 1, (5), Work Processes, Subparagraph, Readiness Determinations, has been revised as follows: Readiness Determinations The Site procedures that implement DOE Order 425.1, Startup and Restart of Nuclear Facilities, are documented in 1-H24-ADM-10.10, *Startup and Restart of Nuclear Facilities Operational Readiness Reviews* and 1-U85-ADM-10.03,

#	QAP Section	Comment	Reference to QAP, Appendix 2, Summary of Changes	Comment Resolution
				Startup and Restart of Nuclear Facilities/Programs Readiness Assessment/Management Review. These procedures provide guidance in meeting the requirements for planning and conducting a Readiness Assessment (RA) when required by the conditions of a restart or activity as specified in the DOE Order 425.1 These procedures also provide a methodology for determining the breadth and depth of the readiness determination consistent with the hazards and complexity of the proposed facility transition. In addition to grading the readiness assessment by breadth and depth, the procedures are also graded by applicability. The readiness determination requirements do not apply to facilities that are less than Hazard Category 3. Appendix 2 of 1-H24-ADM-10.10, *Application of the Graded Approach in ORR Planning*, provides factors to consider in developing the depth of readiness determinations.